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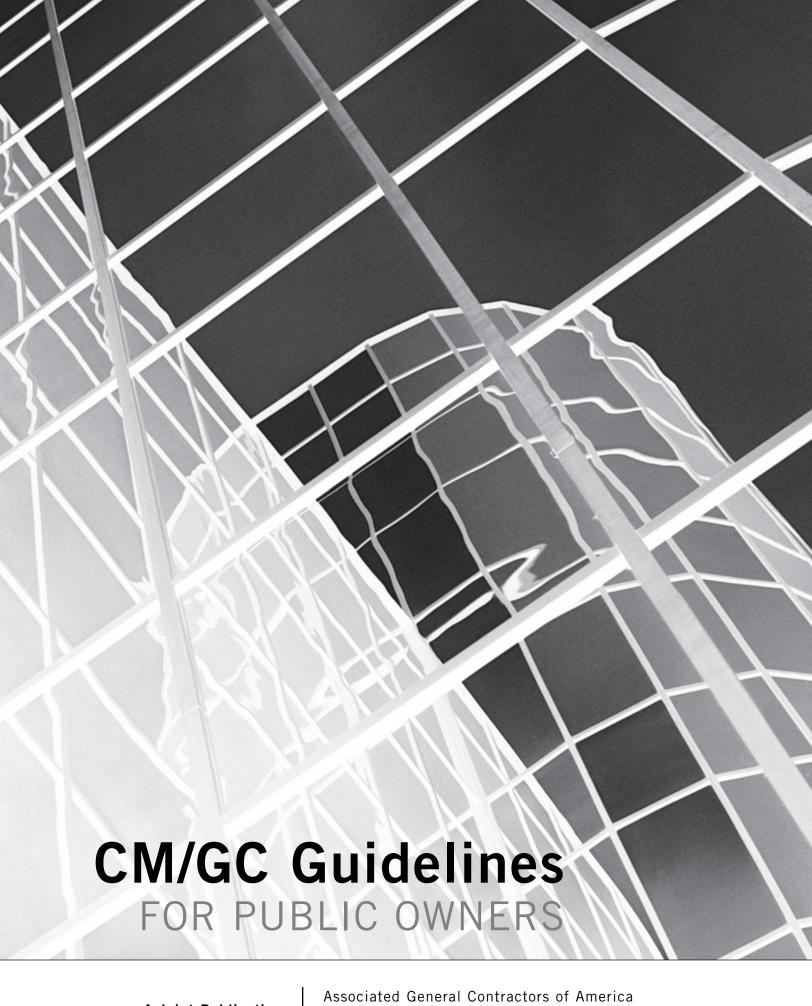
CM/GC Guidelines for Public Owners, second edition © 2007 by the Associated General Contractors of America and the National Association of State Facilities Administrators.

AGC Document 250, Standard Form of Agreement And General Conditions Between Owner And Contractor (Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Serivces) © 2000 by the Associated General Contractors of America.

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PREFACE TO THE SECOND EDITION

Both NASFA and AGC of America are proud to share this updated version of these guidelines. What made the first edition so popular was the input from representatives from the states using this project delivery approach. As an increasing number of states continue to use CM/GC (a.k.a. CM at-Risk, CMc, CMR, CMAR), the list of lessons learned from the public owner's perspective has continued to lengthen as well. This document reflects a number of these lessons and includes suggested options and best practices that representatives from several states have found helpful in getting started.

Examples of some of the updates in this second edition, added by representatives from some of the states using CM/GC, include:

- Better clarity of vocabulary and definition of CM/GC
- Articulation of the Public Owner's Responsibilities
- Options added for selection of specialty trade contractors including QBS, Design-Build, and Design-Assist (similar to CM/GC at the trade level)
- Expanded discussion on the use of performance-based incentives as a tool to increase collaboration
- Expanded discussion on best practices for establishing and managing contingencies
- Introduction of the concept of a "project team estimate" and discussion on periodic cost estimates
- Guidance on timing and risks associated with establishing a guaranteed maximum price (GMP)
- Acknowledgement of the option to hire the CM/GC prior to the designer, particularly when there has been a good Project Definition or Predesign effort
- Better clarity in the explanation of the procurement/selection process, including discussion of a "pure QBS" (no price) selection option
- Added to potential experience requirements related to Building Information Modeling (BIM) capabilities

As delivery methods such as CM/GC continue to evolve, both groups recognize the need to update in order to keep this document current. We will continue to strive to do this and encourage everyone to share any comments or suggestions with us any time.

PREFACE

Construction Management (CM) is a broad term covering a variety of project delivery scenarios with one common feature: a construction manager is part of the building team that oversees scheduling, cost control, constructability, project management, building technology, the bidding on or negotiating of construction contracts, and construction. While the term implies the management of construction only, construction managers may be employed to assist the owner with any phase of the delivery process, from predesign to the final building inspection. Construction management is appropriate for public projects that are relatively complex, those with a budget or schedule that must be very closely monitored, or those that require extensive coordination of multiple consultants, contractors, or specialty contractors.

The construction manager may be formally trained in the field or may be an architect, an engineer, a contractor or a developer. Construction management remains a largely unregulated business and is not a licensed activity in most states. The role of the CM depends on the negotiated scope of services and the allocation of risks between the owner and the CM. The CM plays the role either of a consultant who assists the owner with the management of the project or of a contractor who consults during the design phase and is subsequently responsible for the actual construction and holding of the trade contracts. When the CM is acting as an advisor to the owner, the CM can assist with project management or can be an agent of the owner, with the authority to make decisions on behalf of, and binding on, the owner.

The traditional method used by most public owners for the procurement of construction has been the "Design-Bid-Build" process in which the public owner engages an A/E to design the project, solicits bids from one or more contractors, and then contracts for the construction based on a firm price and completion date commitment. Recently the construction industry has seen the evolution of a variety of new methods of construction project delivery. The most common project delivery systems include the following:

- "Design-Bid-Build" | the traditional method in which the public owner engages a designer and a contractor under separate contracts. The award of the construction contract is typically based solely on the lowest responsive and responsible bid.
- "Design-Build" | the public owner engages a single entity to both design and build the project.

 The award of the combined design and construction contract typically is based on the public owner's evaluation of a cost and technical proposal from Design-Build entities.
- "CM/GC" (or CM "At-Risk") | a specific variation of construction management in which the public owner engages both a project designer and a qualified construction manager under a negotiated contract to provide both preconstruction services and construction. The CM/GC provides consulting and estimating services during the design phase of the project and acts as the general contractor during construction, holding the trade contracts and providing the management and construction services during the construction phase. The degree to which the CM/GC provides a cost and schedule commitment to the public owner is determined during the negotiation of the final contract. (This is a risk issue. If there is no risk involved, it is not CM/GC.)

The Associated General Contractors of America (AGC), as the leading association for commercial construction companies in the United States, provides educational materials explaining industry changes and suggesting best practices for each of the major delivery systems in use. This publication is intended to establish guidelines for a project delivery system of construction management commonly known as CM/GC. AGC has partnered with the National Association of State Facilities Administrators (NASFA) to incorporate in this publication the public owner's viewpoint during the selection and implementation of this delivery method.

At the outset, both AGC and NASFA emphasize that there is no single best delivery system. Each project is unique; a separate, project-specific decision should be made for each as to which delivery system is most appropriate. Keep in mind, however, that the laws, rules, and regulations of the various public owners will have an impact on how, and whether, a public owner can use CM/GC. This publication is intended to provide recommended procedures for a public body to follow when procuring CM/GC services.

OVERVIEW: WHAT IS CM/GC?

The terms "Construction Manager" and "CM" are used in so many different ways that it becomes hard to be sure of their meaning in a given context. When used in a discussion of how to manage a project, the CM referred to is most likely a "pure" CM (or CM "not-at-risk"). If used to refer to delivery of design and construction, then the CM most likely indicates a CM/GC (or CM "at-risk").

These guidelines are for CM/GC, the project delivery system defined by the following:

- The Architect/Engineer and the CM/GC are under separate contracts directly to the owner
- The CM/GC is selected by a qualifications-based selection (QBS) process
- The CM/GC holds the trade contracts and takes the contractual responsibility for the performance of work (the "performance risk")

Use of the general term 'construction manager' has given rise to much confusion, because statutory and customary definitions of construction management are different in nearly every jurisdiction for the various types of construction management. In addition to CM/GC, terms that share the above defining criteria include:

- CM at-Risk
- CMAR
- GC/CM
- CMc (CM as Constructor)

An additional term, "Design Assist" has evolved to describe a process in which a general or trade contractor is involved in the design process to provide value-added services for a fee to the owner and its separately contracted design team. Based on the definition here, when applied to the general contractor, "design assist" is essentially the same as CM/GC. (On a related note, the growing use of the term "design assist" at the trade contractor level is probably because, in contrast to the term "Design-Build," the term "CM/GC" does not transfer easily to the trade contractor level. Thus, when a trade contractor is brought on board through a primarily qualifications-based selection process and is able to provide input during the design, the term "design assist" is often used to describe this process.)

Recognizing the existing confusion in terminology, AGC and NASFA use the term "CM/GC" to represent a negotiated contract for either form of construction management in which the CM is "at-risk" to the public owner (where the CM holds the trade contracts) for constructing the project within the time and cost limits in the contract—much the same as the general contractor is at risk in traditional work. As defined in this document, CM/GC combines qualities of several other approaches to project delivery:

■ It maintains the direct contractual relationship between the public owner and the A/E of the traditional Design-Bid-Build approach;

- It provides the public owner with similar independent advisory and oversight functions of agent CM; and
- It achieves the early cost and schedule feedback of Design-Build.

The reader is cautioned to take the time to understand the term used for CM/GC in their local area. For instance, Oregon and Washington statutes both authorize CM/GC, yet Oregon labels the system "CM/GC" while Washington uses "GC/CM." Virginia does not distinguish between CM types, but limits CM use to projects over \$10 million when it can be shown that CM is more fiscally advantageous than competitive bidding or that competitive sealed bidding is not practical for that project. Differences also arise over whether the CM can perform part of the work itself and, if so, how much and under what conditions. There are many other differences in how CM/GC competitions are conducted and when they are allowed. Preconstruction services, limitations on self-performed work, requirements for bidding and awarding trade contracts, pricing requirements, and other stipulations should be set forth in the public body's Request For Qualification or Proposals (RFQ/RFP) solicitation for the CM/GC. These elements should be clearly discussed with the public owner and the CM/GC during the contractual negotiations and prior to the start of the work.

"Pure" CM as a Management Option

When a CM does not hold the trade contracts or the contractual responsibility for the performance of the work, but is hired by the owner to oversee the construction as either their agent or their representative, this is referred to as a "pure" CM (or a CM "not-at-risk"). Pure CM as a management option can be used with any project delivery system, including in conjunction with CM/GC.

The pure CM is selected based on qualifications (and sometimes price of services) to act as the public owner's consultant/advisor, providing preconstruction services early in the design process to promote predictability in budgeting and scheduling. Under this arrangement, the pure CM is paid a fee for the services it renders and assumes no risk for the performance of the design or construction. The public owner continues to bear the risk of cost and schedule overruns, regardless of the estimates provided by the pure CM.

Once the contract documents are completed, the pure CM often assists the public owner in procuring, in a competitive environment, and managing the public owner's contracts, working with a general contractor or with multiple prime or trade contractors to perform the construction. The pure CM does none of the actual construction work, but may be responsible for such work as providing toilets, trash receptacles/removal, etc., which is helpful to all trades. Since the pure CM does not perform construction work, it is often called a construction administrator or a project manager to distinguish its role from the CM/GC.

By contrast, the CM/GC, in addition to providing the preconstruction, budgeting, and scheduling services, competitively procures and contracts with specialty contractors and assumes the responsibility and the risk for construction delivery (the "performance risk"), usually within specified cost and schedule terms and often including a guaranteed maximum price (GMP).

The term "CM Agency" or "Agent CM" is often used interchangeably with pure CM (or "not atrisk"); however, this is generally not a recommended practice. An "agency" type of relationship has legal ramifications indicating an ability to act as the "owner," a responsibility that is likely greater than that the CM has actually been given. To be consistent with the legal definition of an agency relationship and to more accurately describe the owner's representative's level of responsibility, the term "pure CM" (not at-risk) is used to distinguish from the CM/GC (CM at-risk).

PUBLIC OWNER RESPONSIBILITIES

The public owner has responsibility for several important tasks prior to the start of a public building project and the selection process recommended in this document. The accomplishment of these activities will greatly affect the success and the outcome of the project. The following activities are recommended:

Define the project | Determine the schedule and budget | Determine the procurement methodology |

Develop the contracts | Understand the procurement rules

Project Definition

The public owner must carefully pull together all the information that the A/E, Design/Builder, CM/GC or General Contractor will need to complete the work associated with the project. Typically these documents will provide:

- **Program information** | describing the spaces, functions, needs, goals, objectives and expectations that the owner has for the project
- Standards of performance and project requirements | identifying all systems (mechanical, electrical and technology) performance requirement and maintenance information
- Site or master plan information | master plan, survey information, and site information, including geotechnical material, benchmarks, legal limitations and utility locations
- Quality information | defining aesthetics, goals and the material finish level
- Scope information | defining the entire project based on "what the owner cares most about"
- Budget information | the expected budget
- Schedule information | including milestones and the date of substantial completion
- **Historic information** | documents, news clippings and photos, as well as other historic materials that will provide direction
- Impact items | codes, regulations and approvals that may be unique to the project or the property and that would normally not be considered by the A/E or CM/GC

These documents form the Design Guidelines and Imperatives that clearly spell out the needs and expectations for the project. A good set of guidelines can reduce questions and controversy and eliminate scope-creep. These documents will provide guidance to the A/E, CM/GC, user groups and the owner throughout the life of the project. They become part of the selection material that should be provided to interested professionals that propose on the project during the selection process.

The public owner may want to budget additional funds for the services of a professional architect to develop the project definition documents as described above.

Schedule and Budget

The public owner is responsible for determining a responsible budget and schedule. The design guide-line and imperatives will provide an excellent guide for the development of the budget. A healthy contingency for both the designer and the CM, as well as for the owner, should be included in the budget. It also should include other owner-specific costs. The budget should be developed in a cost model format (e.g., CSI) identifying the critical elements of the project and placing a value on each.

Schedule is likewise a critical element that will have an impact on the cost of the project. By utilizing the design guidelines and imperatives, the owner gains a complete understanding of the requirements and is better able to realistically determine the overall schedule. The public owner should clearly delineate the timeframe expectations for each of the major phases of the project, including procurement of A/E and CM/GC services, as well as the occupancy phase.

The budget and schedule should become part of the solicitation materials to be provided to the architect and the CM/GC during the second phase of the process.

The owner shall provide information regarding project funding arrangements that have been made to fulfill the owner's obligations under the contract.

Determining the Type of Procurement Methodology

The optimal procurement methodology is critical to the success of the project. Once the owner has defined the project and the project goals, the best way to procure the facility can be determined. This document is focused on the CM/GC procurement process. However, all procurement processes come with risks and rewards as well as benefits and consequences for the public owner. Each process should be weighed against the project requirements to determine the best methodology by which to deliver the project.

Developing the Contracts

Standard design and construction contracts may restrict or limit the collaborative environment that CM/GC can bring to a public building project. The public owner should review the architect's contract and the CM/GC contract and modify both to take full advantage CM/GC benefits and the opportunity for collaboration. These collaborative contracts and their individual provisions should be made available during the selection process.

Understanding Procurement Rules

Some procurement rules require that the CM/GC act under the same rules as the public owner when it buys out the work by awarding contracts to subcontractors, while other rules do not. Some rules require that all subcontracts be procured through low bid. It is critical that the public owner understand this aspect of the buy-out process and that the owner clearly explains the rules in the selection documents. This understanding will allow the CM/GC to procure the project while saving the public entity the greatest amount of money.

RECOMMENDED SELECTION PROCESS

AGC and NASFA strongly support full and open competition among general and specialty contractors and their suppliers and service providers. The construction industry's health and integrity depends on every qualified firm having an equal opportunity to compete. Public owners must be diligent in honoring the public trust while searching for more innovative and flexible approaches to construction. The public owners who choose alternative project delivery methods must ensure the method chosen is properly and fairly used to serve the public interest with high-quality, cost-effective, and timely construction. Whatever project delivery method is utilized, the selection process for both design services and construction procurement should be consistent, open, competitive, and free of political influence.

The selection process is considerably more complex than in the Design-Bid-Build, lump-sum method. The owner may select the CM/GC by either a:

- 1. **Qualifications-Based Selection** | Construction cost of the work is not a criterion for the final selection; qualifications are a factor in final selection (construction cost of the work = 0% of final selection criteria); or
- 2. **Best Value Selection** | Construction cost of the work and qualifications are both factors in the final selection (construction cost of the work = between 0 and 100% of the final selection criteria).

Qualifications-Based Selection Process

Because the majority of CM/GC selections are based on a Qualifications-Based Selection (QBS), the following section and the majority of this publication is based on a typical CM/GC selection using a QBS process or a selection process that might include a weighting of fees for preconstruction, construction and/or general conditions.

For example, the following fee elements could be considered:

- Fee | Preconstruction Services | Construction Services | Post Construction Services
- General Conditions | Estimate of anticipated expenses based upon the project definition
- Project Budget Estimate | Divided into the major categories of work, based upon the project definition documents
- Recommended Contingency | Design Contingency (preconstruction) | Construction Contingency

If price is included in the form of these fees as part of the final selection process, some may refer to this as a variation of a "Best Value Selection" process. The benefit is that in some states, procurement rules and regulations require the selection of a contractor through competitive pricing; this provides the public owner the opportunity to select the most qualified contractor at a competitive price. It is up to the public owner to determine the weight given to the fee criteria. In some cases the fee may be less important and therefore given a smaller weight factor. The weight factor should reflect the relative importance of the fee, but it should never be the sole determining factor.

It is extremely important to note that even if any combination of these fees is part of the selection process, these guidelines are based on the assumption that a "bid" for the Total Construction Costs is not part of the selection process. (For best practices on contractor selection processes including total construction costs, see the separately published document, "Best Practices for Use of Best Value Selections," also jointly produced and published by NASFA and AGC of America.)

Several states statutorily or by policy prohibit any element of price to be part of the selection process for contractors using CM/GC. Thus, these states strictly use a "pure QBS" selection process similar to the one they use to select their designers. In the "Request For Proposal" section of the "CM/GC Selection Process Overview," some further guidance is offered on handling of Fee and Pricing Proposals if they are a part of the selection process.

General Selection Process Elements

AGC and NASFA recommend the two-phase selection process; the first phase is a Request for Qualifications (RFQ) and the second a Request for Proposals (RFP). During the Request for Qualifications phase, consideration is given to the qualifications and expertise of the proposed firm. During the Request for Proposals phase, the firm submits its general qualifications of the CM/GC's proposed team relative to the requirements of the specific project, the cost of any preconstruction services, the proposed CM fee, the proposed General Conditions cost, and the commitment of the CM to the public owner's construction budget and schedule. The cost and schedule commitment is typically defined near the end of the design process.

Each phase is intended by its evaluation and selection process to give the public owner an advantageous balance of the cost and quality in CM/GC services, which may represent only 10% to 15% of the total project cost but can have a significant impact on the balance of that cost. In some jurisdictions, public procurement regulations, statutes, and rules may specify or restrict the public owner's ability to accept anything other than the lowest bid. But where qualifications-based procurements are acceptable, the criteria for accepting or rejecting proposals (including the criteria for accepting a proposal on other than a lowest-price basis) should be specified in the solicitation.

While the two-phase selection method may be the one preferred, many hybrid selection processes have been developed as a result of owners' requirements and personal philosophies.

The RFQ process is used to identify which firms are interested in the project and to pinpoint their relative qualifications to carry it out based on past performance on similar projects. The qualifications under consideration at this stage normally are limited to non-monetary issues. The owner should provide information about the project to the firms interested in applying for it. This material should provide some definition of the project under consideration.

Typically, the following are elements of the RFQ:

- Experience in similar projects,
- Experience in type of project delivery system,

- References from architects and owners from previous projects,
- Description of the CM/GC's project management approach, and
- Bonding capacity.

Once the RFQs have been received, the owner reviews them to identify those firms that have the best and most relevant experience, references, and financial capability. The owner may use weighted criteria in reviewing the RFQs to focus on those firms that have background in those areas most important to the owner. Selected firms are then shortlisted. Assuming the owner received a significant number of RFQs, the shortlist would be limited to the best three to five firms that have demonstrated they are truly capable of providing the services and skills required by the project. By limiting the list to these firms, the owner produces a more motivated group of firms, as their individual odds of success have increased. As these firms are competing against high-quality companies, they will tend to be more competitive and thorough. The shortlist also allows those firms that don't have the same level of skills and experience (or reasonable opportunity to acquire the project) to move on to more viable opportunities quickly and with limited expense.

The selected firms are then given the RFP, which is a more in-depth request for information. They should also receive at this time all the material that was developed by the owner to define the project, including the contract, budget, schedule and expectations. The more information the owner can provide to the firms about the proposed project, the more specific information the firms can provide about their approach and creativity in delivering the completed project. Information concerning project size, anticipated schedule, budget, site requirements, specialized requirements, etc., is helpful. It can be a good reality check for the owner at this early stage to compare how the different proposers perceive the project objectives. This allows the owner to qualitatively evaluate, on a comparative basis, the competing proposals. Typically, the RFP would ask for the following:

Experience

Resumes and references of proposed project staff members

Organizational chart describing how the project will be organized during preconstruction and construction

Specific firm experience on similar projects, including costs, schedule, and quality

Experience with Building Information Modeling (BIM), including 4D scheduling and 5D estimating (if applicable)

■ **Detailed project approach** (Management Plan), including preconstruction services

Conceptual estimating

Detailed estimating

Value analysis

Systems analysis

Scheduling services for all team members and public authorities

Constructability reviews

Long-lead item strategies and purchasing

Bid package development

Cultivation of specialty contractor and supplier interest

Design support

Construction services

CPM scheduling

Short interval scheduling

Cost control and cost forecasting

Change order management

Self-performed work

Specialty contractor and supplier procurement

Punchlist and warranty programs

Business Relationship (in a separate sealed package)

Proposed contract form or qualifications to the owner's proposed contract

Proposed fee (usually expressed as a percentage at this stage)

Proposed general conditions or reimbursable costs

Budget

Budget for project (if enough information is available)

Outlined specifications that define budget

Qualifications and clarifications of the budget

Weighting

Criteria and weighting factors used by the owner in selecting CM/GC

Once the RFPs have been received, the owner again reviews them to determine which firms bring the best balance of creativity, cost, and experience to the project.

In cases where the design has progressed to a substantial level (to design development) prior to the selection of the CM/GC, the owner may wish to request a budget from each proposer as part of the selection process. Often this can become a very competitive pricing exercise on incomplete drawings. The owner needs to remain objective when evaluating the comparative budgets and not just take the lowest price. As the CM/GC has the responsibility to carefully review specialty contractor bids for completeness, full scope, and ability to achieve the project's goals, the owner needs to be equally diligent in reviewing the CM/GC's budget so as not to develop false expectations that cannot be fulfilled at a later stage in the project. The biggest risk of having what becomes a "competitive budget" at this stage is that those CM/GC firms with the least experience may significantly underprice the project, creating false expectations and adding unnecessary adversarial aspects to the project as the construction documents are completed and the final Guaranteed Maximum Price (GMP) is established.

From the shortlisted firms who have submitted RFPs, the owner will normally select two to three firms to participate in organized interviews or presentations to the owner and other members of its team. The number of firms selected for interview should be based on the initial scoring of the proposals and should be limited to those firms that may reasonably be expected to receive an award. In almost all cases, the owner's selection team will determine weighted criteria for all elements of the RFP. In some jurisdictions, these criteria may be set by regulation. They may also be determined by what the owner's team feels are the true priorities for the project. Price may or may not be most important; possibly the fastest schedule is most important. The shortlisted teams should know how the criteria are weighted so they can focus on what is important and not just get there by luck.

The interviews tend to be limited to one hour and are focused on the competing firms' presentations of their proposed team members. Interviews allow the CM/GC firms to show off their communication skills and project plans in a more dynamic atmosphere—one that includes questions and answers. The interviews also allow the owner to determine his or her comfort with the personalities and styles of the proposed team members and identify who has the best fit with the proposed project.

The owner selects that firm perceived to provide the best value, and enters into negotiations to resolve any differences in terms, contract language, fees, reimbursable expenses, etc.

Establishing the contract amount in the CM/GC delivery system is somewhat more complex than in the lump-sum or fixed-price method. Normally, the owner has a project budget. The construction costs are just a part of the budget, which also covers land acquisition, design costs, testing, FF&E, interest carrying costs, owner contingency, and project administration. In the best situations, the owner indicates the amount allocated for construction costs. This allows the CM/GC to be more effective in budgeting and value analysis. It is also helpful if the owner is clear about his or her financial goals for the project: to complete the project at the lowest reasonable cost, or to produce the project at the best value the budget will allow?

At some point—normally at the completion of the construction document stage—the Guaranteed Maximum Price (GMP) is finalized, setting the contract price for the project (including the CM/GC's fee and reimbursable costs). This ensures that the owner will get competitive bids for cost of the work from the subcontractors and doesn't require the CM/GC to include as much risk protection contingency to cover this risk.

In some situations, the public owner may want to use a hybrid of the process described above. Probably the most commonly used hybrid is converting the contract to a lump-sum. A public owner uses this method when he or she wants all the advantages of the preconstruction process without the risk-sharing aspects of the construction phase. When the method is used, the lump-sum amount theoretically will go up a bit higher than the GMP as the entire burden for the price risk

has shifted to the contractor, who should be adequately compensated for the increased risk. The other commonly used hybrid is converting the contract to a cost-plus-a-fee delivery process at the end of design. A public owner uses this method when he or she feels the costs are so clear and complete that there is very little potential exposure to cost overruns. By using a cost-plus method, an owner can reduce the overall price from the contractor (contingency) as he or she has now taken on all the risk for cost overruns.

As with all delivery systems, CM/GC has several benefits and challenges, some of which are detailed below.

Potential Benefits of Using CM/GC

- Provides the construction team the opportunity to jointly develop an aesthetically pleasing, operationally functional, space-efficient building design utilizing low maintenance and reduced life cycle systems for the benefit of all;
- Allows "fast track" construction to start while detailing structures, interiors, and systems by awarding sitework, foundations, and long-lead items (such as precast concrete and major equipment contracts);
- Challenges the entire project team to stay within budget by allowing for full and frank discussions of the cost and schedule implications of various design solutions, thereby allowing the owner to make informed cost-benefit tradeoff decisions:
- Enables public owners to select a prime constructor in whom they have confidence to provide quality workmanship, dependable performance, fair and reasonable pricing, and efficient management as a team member;
- Provides constructor's input into systems, labor and materials availability, work and trade sequencing, and construction methodologies that can reduce design and construction time and costs;
- Aids in evaluating system options and obtaining real-time cost estimates;
- Encourages concurrent input from the A/E and the CM/GC during design and helps the public owner make better decisions on various alternatives; and
- Keeps the design/pre-construction team on a schedule.

Potential Challenges of Using CM/GC

- Determining a fair and reasonable GMP for the project in relation to the A/E's design vision, the user's requirements, the public entity's expectations and the CM/GC's proposal;
- Determining the public owner's contingency for the project;

- Determining the CM/GC construction contingency for the project;
- Determining what constitutes a change order to the GMP, versus what change orders should come out of the CM/GC's construction contingency;
- Determining when the CM/GC will give a GMP for the project;
- Determining the number of bid packages and the level of detail required for each phase of design (which can impact the A/E fee, when the GMP will be confirmed, and the amount [%] necessary for the CM/GC's construction contingency);
- Overcoming the appearance of limited competition unless "trade packages" are publicly advertised and competitively bid; and
- Understanding the differences in how the construction cost should be categorized; i.e., cost of the work, CM/GC's fee, CM/GC's overhead (or general conditions), CM/GC's contingency, etc.

Public owners should bear in mind that each project is unique. The decision to use CM/GC should, therefore, be made on a project-specific basis. The following guidelines assume that the decision to use CM/GC has been made. Regardless of how the decision was made, AGC and NASFA intend these guidelines to share best practices in the execution of the CM/GC process.

Best Practice Options

The following selection options, whether for a contractor, design/builder, CM/GC, architect, engineer or specialty consultants, have been used with success on both large and small government projects answerable to procurement rules. When selecting a procurement method it is very important to keep in mind the procurement laws, rules and policies under which government owners have to work.

1. Select the Contractor First | The typical qualifications-based selection (QBS) process on a project is to hire or select the design professional first, then to select the contractor or CM/CG through a QBS process or towards the end of the design phase in a bid process. This typical process does not result in a truly collaborative environment in which the contractor and subcontractor feel invested in the project. In fact, history demonstrates that adversarial relationships result more often than not in large change orders and legal problems due to claims.

On the other hand, by selecting the contractor or CM first and then allowing it to be part of the design professional's selection process, the team can develop a truly collaborative relationship. On projects using this modification in the selection process, communication increased, pricing was more accurate, and collaboration resulted in fewer change orders and claims. Not only do designers and builders benefit from communication from day one on the project, but the owner benefits from the support in budget development, schedule management and constructability reviews.

2. Encourage multiple selection options for the CM/GC to use on the project | Every project has unique elements the CM must consider as it selects or procures its subcontractors. While this may sound like an unimportant area of concern for an owner, it is actually one that can result in great savings and fewer change orders if handled correctly. There are a variety of procurement processes that CMs use for selecting subcontractors, but the most widely used is the hard bid process. Subs bid only the documents that are provided, then use the established process to develop change orders. Other successful selection processes that have effectively reduced change orders and furthered collaboration are listed below.

QBS | similar to the process described above, in which a request for proposal is developed and the subcontractor responds with qualifications and sometimes a price.

Design-Build I some trades work better if the work is done with a design-build methodology. This should be fully discussed with the CM before proceeding. The design team should also be advised early as to the decision.

Design Assist Contracting (for Subcontractors) | this is a new process that combines the benefits of QBS and Design-Build with strong budgetary requirements to bring the best information to the design team through consultation with the subcontractor. The process uses a QBS selection process with a bid for the overhead, profit and/or other costs as determined by the owner/CM/GC. In the request for proposals it is clearly spelled out that the subcontractor will work in the first phase as a design assistant to the design (architects') team. They will collaborate and provide full cooperation and information to the design team on details, installation, fabrication, budget and all aspects of the project. For this effort they will be compensated as a typical consultant. If at the end of the first phase (Design Assist phase) they are willing to sign a contract for the agreed-upon budgeted amount based upon their work (they were selected using a portion of the selection criteria as a bid), they will be awarded the subcontract for the work. If, on the other hand, they are not able to arrive at the agreed-upon budget, then the CM or owner has the right to use all the information developed by them and the designer to bid the project competitively. This process has produced excellent results on projects, as it limits risk to the owner, it provides knowledge and skill to the design professional in the design and construction phase, and it provides the benefits of collaboration during a high-risk portion of the project.

It is important to note that Design Assist Contracting in not a process whereby the owner removes the architect and replaces it with the subcontractor. Nor is it a way to reduce the fees an owner pays to the architect or CM/GC, by having the subcontractor provide shop drawings instead of architectural details. To use this method of contracting, the owner should indeed expect to pay more upfront for consulting fees and for coordination (thinking time). The owner may expect later dividends thanks to fewer change orders, delay claims, and chances of litigation. Regard it as an investment in the future, the construction period.

In pursuing a successful construction project, one of the most important elements is the ability of the various parties to work together as a team. The public owner, as the leader, assumes the initial responsibility for assembling a team of firms and individuals that can work together to meet the needs of the project. The public owner has several options on how and when the team is assembled. Generally speaking, the earlier in the process the team is created, the greater the benefit received. To this end, the owner has certain responsibilities before assembling the team or beginning the public procurement process, as described above. In addition, the manner in which the owner procures services can have a major impact on the team members' ability to work together and, consequently, on the project's potential success.

ASSEMBLING THE TEAM: PROCUREMENT OPTIONS

THE **SOLICITATION PROCESSES**

Most jurisdictions have specific rules, regulations, and laws concerning the solicitation and engagement of design- and construction-related services. While there are variations among jurisdictions, the general process is similar. Public notice must be given in which the service being procured must be described, and should include the factors or process for selection and contract award. These selection factors may be based on qualifications, price, or a combination of the two, depending on the type of service or work being procured.

ARCHITECT/ ENGINEER PROCESS OVERVIEW

Selecting an A/E is generally a qualification- and suitability-based process. Respondents are narrowed down to those determined to be fully qualified to provide the service and then a selection is made of the A/E deemed best suited to meet the public owner's requirements for the project. In most instances, there are advertisements or requests for qualifications/proposals, responses from interested A/E firms, the development of a shortlist of fully qualified and suitable firms, interviews of shortlisted A/E firms, the selection of the A/E, a negotiation of fees based on the scope of the services to be provided, and the award of the A/E contract. To make the A/E selection process more efficient, it is recommended that the RFQ require the A/E respondents to complete a questionnaire that focuses on the data that the public owner will use in making the selection.

In selecting an A/E to participate in a CM/GC project, the public owner should be aware of the different circumstances a designer may encounter when working with a constructor during the design phase. The A/E needs to be aware that it will be working in a CM/GC process that includes the budget and schedule control functions that require its cooperation. The A/E will be challenged to coordinate the user's wants and preferences with the constructor's preferred systems, methodologies, and cost considerations. The CM/GC's preferences for sequencing the work and trade/subcontract bid packages will also impact the A/E's development of the construction documents. This may be a good reason to consider the selection of the CM/GC first. However, where the architect is selected prior to the CM/GC, the A/E should become familiar with the offerors responding to the RFQ or RFP for the CM/GC, as the A/E can provide valuable input into the selection of the CM/GC.

Once selected, the A/E's contract should promote and encourage collaboration. Clauses such as the basis of reimbursement should be aligned with the specific requirements of the project. There are some who believe that an hourly fee with a not-to-exceed allows for a more collaborative process, especially in situations where the scope may not be clear or the budget and program may not be aligned, thus potentially requiring extensive services to work collaboratively through the design process. A fixed-price, negotiated-lump-sum approach to the fee may unintentionally inhibit some of the needed collaboration. Generally speaking, a fixed price for an A/E's fees is fine for scopes of service that can be defined. For projects without defined scopes, an hourly with a not-to-exceed may better support the needed collaboration. In other words, if the CM/GC's contract is an openbook, collaborative, team-approach type of contract, on projects requiring a high level of collaboration and integration during the design, the A/E's contract should be as well.

CM/GC SELECTION PROCESS OVERVIEW

If the public owner intends to involve the CM/GC in the design development process, the CM/GC should be selected as early as possible. When issued, the solicitation will notify prospective offerors that the public owner is procuring a particular project under CM/GC and that interested offerors are asked to respond to the RFQ/RFP in the format indicated. Using a standard response form helps the CM/GC provide the specific information to be evaluated. It also minimizes the selection committee's efforts by displaying answers to evaluation points in the same location in all responses, and by minimizing the extraneous material often submitted in RFQ/RFP responses.

All states have public notice requirements that alert interested bidders or proposers that a public project is to be constructed. In general, these notice requirements are adequate. In any case, AGC and NASFA recommend that all solicitations contain a few key elements as described below.

For the **First Phase (RFQ)**, which is open to all interested responders, key selection elements generally include:

- A general description of the project, the scope of services to be provided by the CM/GC during the design phase, the public owner's construction budget, the general timeline for the project, and other major factors that will have an impact on the project;
- Specific deadlines for all responses to the solicitation;
- The forms, formats, and limitations on data to be submitted in response to the RFQ;
- The factors to be used in evaluating qualified CM/GCs and selecting those who will be invited to submit detailed methodology and price proposals;
- Clear instructions on completing the required qualification forms and attachments;
- The place or Web site address where the detailed RFQ (including required forms and formats) can be obtained; and
- Information about when and how the shortlist for the RFP phase will be developed.

For the **Second Phase (RFP)**, which involves the shortlisted CM/GCs, key solicitation elements generally include:

- Available project definition design and program information;
- Specific deadlines for all relevant dates noted in the solicitation;
- Detailed description of services to be provided during the design period and of expected participation in reviews and analyses by CM/GC;
- Description of required information (project management plan) outlining the CM/GC's proposed methodologies during the design and construction phases;

- Requirements for price proposals, to include fee for preconstruction phase services, construction management fee, general conditions costs, CM's approach to contingency requirements, and method of obtaining trades' subcontracts;
- Agreement that the public owner's preliminary cost and schedule budget are feasible;
- Clear instructions on proposal page limits, communications with evaluators, and acceptable personal interview support materials;
- Information about when and how the interviews of the shortlisted firms will be conducted; and
- Proposed contact agreement format.

The purpose of the solicitation is to notify qualified contractors about the project opportunity and to provide them with clear rules for the competition. A well-written solicitation with clear, specific details about the project, as well as the selection competition, will substantially advance the public body's interest in procuring a high-quality project that represents the best value for the public's dollar.

Communication Between Offeror and Selection Team

During phase one of the procurement, the RFQ should clearly define the scope of services and response requirements. Further communication should be limited to administrative follow-up and clarifications. The extent to which a public body can communicate with offerors during the procurement process is typically very limited and in some cases defined by procurement rules or statutes.

During the RFP phase, communications, such as a preproposal conference inviting selected respondents to submit questions, should help the CM/GCs to understand fully the owner's scope and requirements. The owner should take care to ensure that all CM/GCs are given the same information, instructions and clarifications on which to base their proposals.

DETAILS OF THE CM/GC SELECTION PROCESS

The recommended CM/GC selection method is a two-phase process. In the first phase, the public owner sends a notice to CM/GCs and/or otherwise advertises in a manner consistent with applicable public procurement laws and regulations. The purpose of the solicitation is to request information demonstrating a CM/GC's experience, qualifications, and capability in the request for qualifications (RFQ) format. Following phase one, the public owner's selection committee, consistent with applicable regulatory requirements, shortlists the fully qualified and suitable firms and sends them a Request for Proposal (RFP). An RFP asks for more detailed information and a greater commitment from the offerors. It is very important to note that, during both phases of the selection process, the criteria for making selection decisions must be specifically stated in the instructions that accompany the solicitation. Following is a typical process timeline and a discussion of the information that should be solicited in these two phases.

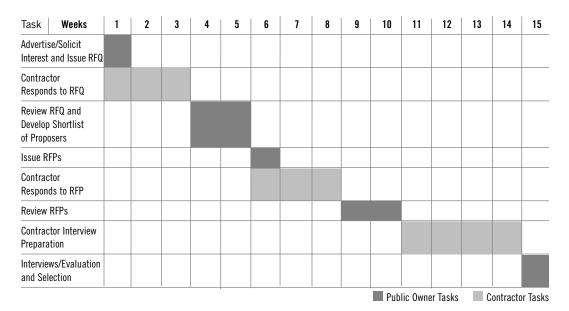
Developing Your Plan

The public owner should develop a timeline for the overall process. This can be done during the project definition development by the owner or it can be done in parallel or as soon after the selection of the A/E as possible. For those using a qualifications-based selection process, industry studies have shown the benefits of selecting a contractor early so that the project benefits from having the construction expertise to draw upon at the right time. The public owner needs to know its internal team's management approach to the project. Once this is understood it can assist in generating the schedule and aligning the in-house commitments and resources.

Preparation of an RFQ/RFP, schedule, and the evaluation forms all should occur before the selection process begins. A typical timeline for the selection process is six to eight weeks and is illustrated below.

Sample Selection Process Timeline

Local statutory or policy- and project-specific requirements may require that the activities and time periods shown in this sample be adjusted accordingly.



Request for Qualifications Phase

Phase one is a Request for Qualifications. This phase requests sufficient information from interested offerors to enable the public owner to determine which firms are most qualified to construct the project. Relevant criteria for this phase of the competition include project size and scope, relevant past experiences, financial capabilities, and staff capabilities. All firms submitting qualifications are reviewed and ranked according to criteria specified in the solicitation. Those most qualified are asked to provide a more detailed proposal in phase two. Depending on the size and nature of the competition and the qualifications of the offerors, between three and five CM/GCs should be selected to participate in phase two. As a benchmark, the public owner should require the following information.

Basic Company Information

- Company name
- Address
- Zip code
- Telephone number
- Fax number
- E-mail address
- Name of primary contact
- Number of years in business
- Licensing information (if relevant)
- Form of ownership, including state of residency or incorporation
- General statements of firm history, including the above information (which can be found in AIA document 305 or the federal 254 and 255 forms), are kept on file at most firms that provide CM/GC services.

Form of Ownership

■ Is the offeror a sole proprietorship, partnership, corporation, limited liability company, joint venture, or other structure? (For joint venture or partnership entities that have not completed at least two relevant projects together, each firm should submit its qualifications separately.)

■ Is the joint venture or other association legally structured and licensed to do business in your state? (If the answer is no to either or both questions, have proposers provide an explanation of their status and their intentions to meet these requirements, as they may exist in your state.)

Office Submitting Qualifications

If the firm has multiple offices, the qualifications statement should include information about the parent company and branch office separately.

Authorized/Licensed to Do Business in State

Is the firm submitting qualifications or a proposal licensed or authorized to do business in your state?

Personnel Capability

Provide general information about the firm's personnel resources, including the classifications and numbers of employees and the locations and staffing of offices. More detailed information should be included for key personnel expected to be involved in the project. The key personnel are the executive in charge, the project manager, the estimator or preconstruction manager, the project superintendent, and the project engineer. If the project schedule plans for a construction start later than six months from the date of the solicitation, multiple names may be given. Each resume should include an owner and design professional reference.

Consultants

List the names of any consultants and the services they will contribute to CM/GC services (e.g., scheduling, quality control).

Financial and Fiscal Responsibility Information

- The public owner has an enhanced responsibility to contract with firms financially sound enough to perform a project to its conclusion. It may be difficult to determine financial and fiscal responsibility. The public owner must rely upon indicators of financial soundness, but in order to do so appropriately, must be capable of a fair and reasonable interpretation of any chosen indicators.
- Provide a letter from the firm's bonding company stating its ability to bond the project under consideration. (This should be considered as a pass/fail criterion. Having bonding capacity in excess of that required for the project does not necessarily indicate that the firm is "better.")

The public owner may require CM/GC firms to provide financial ratios covering a number of years. These ratios might indicate financial soundness and trends.

A strong word of caution to anyone planning to use financial ratios to assist with the evaluation of firms' qualifications: if uncertain of what you are evaluating, you will not have a proper basis for decision-making. Financial ratios often require professional interpretation. If you do ask for financial ratios, be prepared to evaluate them knowledgeably. Recognize that, although numbers by nature give the appearance of being objective, financial ratios do not always constitute a statistic that can be relied upon without professional interpretation. Financial ratios should not be considered a pass/fail criterion.

The public owner should consider the use of independent rating agencies (such as Dunn & Bradstreet) to assist in evaluating a responding firm's historical performance. Most rating agencies can provide a company's organizational history, financial history, and commercial records, such as its history of paying subcontractors and suppliers. While the information in such reports is historical rather than current, and often relies upon survey information, it is generally benchmarked against a level standard. The information can cover areas of interest or concern that a shortlisted firm may be asked to provide to aid the overall evaluation process. Independent rating agencies also provide, in understandable terms for laymen, explanations of how they assess the reliability of their information, thus providing an outside perspective on the responding firm.

- Has the respondent or its subsidiaries been terminated for cause on a contract? If so, provide explanation.
- Has the respondent made payments of actual or liquidated damages in the last five years for failure to complete by the contract completion date? If so, provide explanation.
- Has surety made payments on your account or your subsidiaries' accounts on Payment or Performance Bonds in the last five years? If so, provide explanation.
- Have judgments been entered against you or your subsidiaries for breach of contract? If so, provide explanation.
- Have there been convictions or debarments of the firm, its officers, or its principals for building code violations, safety violations, bid-rigging, or bribery in the last 10 years? If so, provide explanation.

Bonding Capacity

The CM/GC should demonstrate the ability to secure performance and payment bonds from a U.S. Treasury-rated company licensed in the jurisdiction of the project. Following are the items generally evaluated by a public owner or surety company:

Single Project Limit

The surety company should be willing to provide performance and payment bonds to the CM/GC for a project of this size, type, and complexity.

Aggregate

A CM/GC's current amount of bonded work, overall volume (including bonded and unbonded work), and proposed project impact.

Sunshine Letter

A CM/GC should provide a letter from a bonding agent or surety directly addressing the CM/GC's ability to perform and the surety's willingness to provide performance and payment bonds on the proposed project.

Statutory bonding requirements in each state, known as "Little Miller" Acts, require that contractors performing public construction projects of a certain size, often \$25,000 or more, to furnish performance and payment bonds. These requirements serve important purposes: the performance bond protects the public owner from financial loss by assuring completion of the construction contract in the event of contractor default, and the payment bond assures the public owner that subcontractors and suppliers, who do not have lien rights against public property, will be paid for the labor and materials that they provide on the public construction project. As the party furnishing the construction, the CM/GC will be statutorily required to furnish these bonds. Demonstrating the CM/GC's ability to obtain performance and payment bonds for the project is further assurance to the public owner by an independent, financially-sound surety company that the CM/GC possesses the appropriate credit history, financial strength, experience, equipment, and management experience and capability to perform the contract.

Safety Information

- Provide a letter on letterhead from the firm's insurance company, stating the Workers Compensation Experience Modification Rate (EMR) for the past three years. (Anything less than one is considered better than average.)
- Has the firm or its subsidiaries received a final order for willful or repeated OSHA violations or failure to abate safety deficiencies during the last 10 years? If so, provide explanation.

Experience in Project Delivery System and Project Type

Provide examples of specific project experience that used the CM/GC form of procurement (or performing as a general contractor on similar types and sizes of projects), including experience relevant to the type of project to be constructed. Procurement officials should use project-specific judgment when determining how many past projects should be reviewed. Requiring several examples of past experience may prove too strict a standard for large, technically complex projects, and may thereby unintentionally eliminate some or all qualified firms. Too strict a standard can also unnecessarily eliminate competition, and as a result the government may not receive the best value on the project. By the same token, too flexible a standard can fail to identify companies that are not well qualified to undertake a project. As a general guide, two to five roughly equivalent projects (a similar type of construction and a contract dollar amount equal to 75% or more of the incumbent project) should be described in order to demonstrate the firm's ability to perform the project at hand. For each project, the following information should be requested:

- Project name
- Project location

- Dates during which services were performed
- Physical description (e.g., square footage, number of stories, site area)
- Brief description of project
- Services performed by CM/GC or GC firm
- Statement of performance versus public owner's expectations in the areas of costs, quality, and schedule
- Owner reference
- Design professional reference

Note | If the public owner relies on past performance information other than information identified by the contractor, the contractor must be given an opportunity to clarify *any* negative information.

Statement of Why the Proposing Firm Should Be Selected

This section gives each firm the opportunity to provide specific information that differentiates it from others in the competition. This statement should be limited to two pages.

Evaluation of the RFQ and Preparation of the Shortlist

- During this step, the selection committee (which should include three to five people and may include the A/E as an advisor) should review the documents submitted by the responding firms and create a ranked order list based on the criteria and ratings published in the RFQ. It is important that the firms be rated on only the published criteria and that the relative weighting of the criteria be included in the RFQ so that there can be no question of impropriety in the shortlisting process.
- Once the shortlist has been developed, those firms listed on it, and those firms only, are provided with additional information and instructions for the next phase (RFP), and are scheduled for interviews. These firms should also be given an opportunity to visit the site of the project and ask pertinent questions.

Request for Proposals Phase

The second phase is the Request for Proposals (RFP). The RFP is more detailed than the phase one RFQ process and involves more time, effort, and expense for all parties. The number of firms invited to propose should be limited to a number which allows for an efficient competition to take place among the most highly ranked, fully qualified, and suitable respondents to the RFQ. This number will typically include between three and five competitors. In its proposal, the offeror will respond to the RFP by providing detailed information about pricing, technical expertise, past

experience, and other issues. The proposals are reviewed and ranked following procedures specified in the solicitation. All of the shortlisted firms responding to the RFQ should have the opportunity to make a presentation and be interviewed. Finally, the offeror determined to be fully qualified and best suited to provide the best value to the public owner is selected, and the final negotiations for the award of the contract (if any) take place. Items to require in the RFP include the following:

Project Management Plan

Once a shortlist is developed based upon the qualifications, capabilities and suitability of candidates for the project, it is quite another thing to select the CM/GC that is going to construct it. Each shortlisted team should be provided with a complete scope or set of the project definition documents, which include the design guidelines and imperatives. This will include a scope of work, schedule, level of quality and general budget as described above. With this information the CM/GC can develop a "management plan" for the project. The management plan should define clearly what activities the CM/GC is going to perform during the:

- Preconstruction Phase
- Construction Phase
- Post Construction Phase

The RFP should require that the management plan be complete and describe clearly how the scope of the project, the budget and schedule will be managed by the CM/GC to accomplish the work for the owner.

This plan is critical because it provides the basis for the Fee and Pricing Proposal. The proposal must be based upon a specific scope of work. Without this scope of work, the fee and pricing proposal is debatable, which leads to conflicts and litigation. With a clear management plan from the CM/CG, the owner can start the contractual negotiations and utilize the plan as the basis of the CM/GC scope of work. The fee is then tied to the scope, which is tied to the project definition documents, which are ultimately tied to the contract. The result is the first real step towards a collaborative relationship among all parties.

Fee and Pricing Proposal

While qualifications, capabilities, and suitability for the project have been stressed above, many public bodies must also consider price or cost as a factor in the selection process. To provide a valid comparison, the cost or price submitted in each proposal must be based on a clear scope of services described by the RFP. A pre-proposal conference with all shortlisted contractors should be held to clarify the scope of proposed work and to answer questions after the contractors have had time to review the RFP.

When the public body considers price in the selection process, the selection panel would probably assume that the actual construction cost (i.e., the total cost of all trade or subcontract packages) would be essentially the same for all CM/GC proposers, just as in traditional open bidding.

Therefore, the price variables for CM/GC evaluation and selection are the CM/GC fee for preconstruction period services, the CM/GC fee for construction period services, the cost (or percentage factor) for the "general conditions" work, and the CM/GC's proposed approach to contingency requirements.

The focus should be on the CM/GC that the owner thinks would provide best value and early predictability.

It is helpful to understand the term "total project cost" (TPC) and the components that make up that cost. It is recommended that these terms be defined in the RFP so that the proposal comparisons are on an equal footing.

The total project cost is generally defined as the sum total of the following: the total construction cost; the A/E design fees; consulting and specialty service fees; and other owner project costs.

The total construction cost is defined as the sum of the cost of the construction work (including change orders), the general conditions costs, and the contractor's fee. In the traditional method, these parts are lumped together as the contractor's bid. In CM/GC, the costs are usually listed separately in the fee proposal.

The cost of the construction work is generally defined as the direct costs of labor, materials, equipment, and associated costs of the trades/subcontracts which are incorporated into the completion of a project. In the traditional method, this cost is included in the contractor's bid. In CM/GC this cost is a separate line item in the total contract price or total construction cost or the guaranteed maximum price.

The contractor's fee is generally defined as the sum included in the total construction cost or bid that compensates the contractor or CM/GC for home office expenses, overhead, profit, and general management of the contract during the construction phase; it is subject to modification by change order. In the traditional method, this fee is included in the contractor's bid. In CM/GC, this fee is included as a separate line item in the total contract price or total construction cost or the guaranteed maximum price.

The general conditions costs are generally defined as the total compensation payable to the contractor for his onsite supervision, inspections, coordination, and managing of the work, and for all equipment, utilities, facilities, bonds, insurance, labor, etc., including markups as required by the general conditions during the construction phase of the contract. In the traditional method, this cost is included in the contractor's bid. In CM/GC, this cost is listed on a separate line item in the total contract price or total construction cost or the guaranteed maximum price and is subject to modification by change order.

If a fee and/or cost proposal is necessary before the public owner may utilize CM/GC, have the candidate firms submit their fee and/or cost proposals in sealed envelopes before the interviews. Rank the firms based on their performance, responses, references, and overall suitability for the project; evaluate the fee proposal data; and develop a final overall ranking. The top-ranked firm would be selected for the contract or called for further negotiations, if necessary.

Remember that you are selecting a "team member" on whose advice and guidance you will often be depending. You must feel comfortable with the selected firm serving you in that capacity. Fees are a small part of a project's overall cost, especially when considered in relation to the long-term operating and maintenance costs associated with a typical public building. If possible, select the CM/GC best suited for your needs, not simply the lowest price.

Fees, Prices, and General Conditions

The industry has developed three typical ways of compensating the CM/GC for its general conditions costs. The public owner and the CM/GC can agree on a lump-sum amount for all general conditions costs, an amount not to exceed a stipulated maximum, or a percentage of the construction costs.

Often there is uncertainty about what items are included in "general conditions" and how to calculate the appropriate costs. There is no substitute for making clear—in the RFP—what is included in each part of the price proposal, especially the general conditions. Specific details enable the CM/GC proposor to more accurately price his services and the selection committee to compare apples to apples.

Preconstruction fees should be separated from the construction fees and any correlation between them should be made clear. Also, it is recommended that the fees and costs for the various construction period services be separated to show the fixed management fee, the costs for the general conditions work (lump-sum, fixed percentage of construction cost, or an agreed-on not-to-exceed maximum cost), the CM/GC's construction contingency (lump-sum or percentage of estimated construction cost), and the proposed proportioning of cost savings, if any.

How Important Are Fees in the Overall Selection Process?

Public owners should understand fully the importance of fees in the overall selection process, and should clearly state this importance in the instructions accompanying the RFP. This process recognizes that the traditional reliance on lump-sum, low-bid contracting can result in schedule overruns and change orders that raise the final cost of the work significantly over the cost of the winning bid. More owners are recognizing that the real ability to impact overall project cost lies in controlling direct project costs, which can represent over 85% of the costs. Public owners are encouraged to focus on selecting the CM/GC likely to have the most positive impact on the direct project costs, and this firm may or may not offer the lowest proposed fee.

No Price/Fee Option and a Best Practice for Negotiating Fees

Many states, either through their statutes or their policy, do not allow the public owner to ask for any price whatsoever during the selection of the contractor in a CM/GC selection process.

A suggested best practice if fees are not part of the selection process is to require the public owner to negotiate at first only with the highest ranked firm. If those negotiations are not successful, the owner must go to the next firm in rank, and continue with each firm in ranked order until a successful negotiation has been achieved. In addition it is best not to allow an owner to return to a

higher ranked firm with which it was previously unable to reach a successful negotiation. Instead the owner must proceed to the next ranked firm. If it reaches the end of the list of qualified firms without a successful negotiation with any of them, the owner must start the whole selection process over again.

What Specific Items Are Included Under General Conditions?

The Construction Specifications Institute (CSI) lists over 2,000 items under general conditions. General conditions are generally those tasks and services necessary to do the work that are not incorporated into the project. To reduce confusion, the RFP should identify those items of work or services that are included in the general conditions; otherwise, the CM/GC should specify items included. A sample listing of general conditions items is included in Appendix A of this guide.

Fee and General Conditions Matrix

One way to compare CM/GCs is to include a matrix in the RFP, listing the design phase services fee, the construction period management fee, reimbursable items (if any), general conditions items, and CM/GC construction contingency. This matrix provides a baseline for realistic cost comparisons.

Performance-based Incentives/Sharing of Savings

Sharing savings between the public owner and the CM/GC enables the parties to capitalize on performance variables that were unrecognized at the time of contract information. There are numerous ways to structure a shared savings provision, although the public owner typically receives the larger share of any savings. Examples of such savings are:

- Cost savings during design | 100% to public owner
- Construction savings by substitutions | 70% to public owner, 30% of net (after deducting the redesign cost, if any) to CM/GC
- Construction cost savings vs. GMP | 70% to public owner, 30% to CM/GC
- Contractor's construction contingency | 100% to public owner
- **General conditions cost** | Negotiable depending on contract terms

Performance-based incentives such as "Incentive Award Fees" (GSA) and "Satisfaction Fees" are another method of further aligning the team's goals. Many Governmental and private owners are uncomfortable with the concept of shared savings, feeling that it results in the CM/GC furthering its own profits at the expense of quality in the project, but the use of these performance-based incentives has been found effective for both parties and allows greater collaboration and higher quality projects.

The satisfaction fee is developed during the negotiations of the project. The owner, working with the CM/GC, places a negotiated amount of money aside as a satisfaction fee. This can be

developed in any number of ways, but the amount should be significant enough to motivate both parties to participate fully in the process. Once the amount is established, the process is as follows:

- Quarterly meetings are held throughout the life of the project and for one quarter past substantial completion. In these quarterly meetings, the owner and the CM/GC discuss the concerns and frustrations of working on the project. The goal is to have candid discussions of how each party feels the other is performing.
- During the meetings the owner reviews the CM/GC's performance regarding the previously agreed-to criteria such as quality, schedule, budget, safety or any other critical element of the project. The owner notes its concerns and discusses these with the CM/GC. The owner also discusses with the CM/GC the overall score or rating it plans to award.
- The owner and the CM/GC arrive together at a score pertaining to the satisfaction of the owner, or what the CM/GC must do to improve the satisfaction of the owner. This score is linked to a distribution amount for each quarter of the satisfaction fee. For example, if the owner is 90 to 100% satisfied with the performance of the CM/GC, then the entire quarterly amount would be awarded. If on the other hand the owner is only 50% satisfied, only 50% or none of the satisfaction fee is awarded, and the CM/GC is given one quarter to correct the dissatisfaction in order to collect the other 50% or lose it all for that period.

The point of the satisfaction fee is not for the owner to keep the money. It is in fact the opposite—the owner should expect and desire to award the full amount of the satisfaction fee to the CM/GC. The purpose of the quarterly meetings is to communicate. Communication on the project is even more important than the savings derived by a shared saving clause. It is more important than holding back on the satisfaction fee. In the long run these meetings will create a greater level of collaboration and trust that will pay huge dividends when real problems arise. This process will keep everyone in communication, and will result in the avoidance of litigation, which a shared savings clause cannot. This is the real financial benefit to both parties.

Experience

Previous Relevant Project Experience

It is best to limit the information requested to two to five projects constructed within the past five years. More examples than that would probably be repetitive and make the CM/GC proposal cumbersome. It also may tip the scale of judgment, without merit, to older or larger firms. The previous projects should be comparable to the one sought, but do not need to be identical. For example, if the proposed project is a laboratory facility, experience in building laboratory space in hospitals or schools may show similar capability. Relevant information to identify includes:

- Type of project
- Value of contract

- Project size
- Project performance period
- Owner's name and contact information
- Architect's name and contact information
- Comparison of similar elements in the past with the proposed project
- Brief description of project
- Color pictures of project (limit number)

Similar Project Delivery Systems

Because of similarities between CM/GC and other CM system hybrids in which the CM is contractually responsible for delivering the project, any projects performed by the CM/GC or GC under these systems should be considered relevant if the physical structure was comparable and the services provided were similar.

Team and Commitment

Organization Chart

Include an organizational chart of the firm that demonstrates how the project team will operate. Also identify the project team's strategic fit within the company.

Resumes and Position Descriptions

Provide resumes and list the responsibilities of the prospective project personnel. Resumes should not be voluminous but should show relevant construction industry experience. As a general rule, resumes should be limited to two pages.

Management Plan

The CM/GC's approach to managing the project—including partnering, specialty contractor relations, labor relations, quality, and related items—should be outlined.

Knowledge of Local Area Where Project Is to Be Built

Local Specialty Contractors and Suppliers

The CM/GC should demonstrate knowledge of and working relationships with the local suppliers and the local specialty contractor community. If the local community is unable to provide adequate specialty contractors for the project, the CM/GC should outline its plans to secure an adequate project workforce.

Insurance Requirements

The insurance coverage required of the CM/GC should be specified in the RFP, so that each proposer will know the project requirements and, should the proposer not currently carry required coverages, he or she can price accordingly. In addition, any public owner or lender requirements for additional insured status should be specified, again due to potential price impacts. The public owner should consider engaging an insurance specialist to review and recommend coverages and limits, to maximize the available coverage for premium dollars spent, and to minimize duplicate and overlapping coverage. Such a program must also consider what insurance risk allocation mechanisms are permissible in the jurisdiction where the project is located (e.g., indemnities and waivers of subrogation) and how those risk allocation mechanisms should be employed. Trade contract, subcontract, and purchase order clauses required to carry out the program should be identified. Ideally, the RFP should also indicate what insurance coverage would be required of specialty contractors. For example, should the same coverage and limits applicable to the CM/GC also apply to some or all specialty contractors? Should different or lower limits of coverage for subcontracts exist under a certain contract amount? If the RFP does not address insurance coverage and limits for specialty contractors, this issue must be addressed in the project manual or other documents given to prospective bidders, and the coverage and limits applicable to various trades must be specified. The following questions should be asked about the CM/GC:

- What are the limits on workers' compensation?
- What general liability and auto insurance is carried?
- What is the type of coverage (occurrence-based or claims made)?
- What is the company's rating?
- What is the depth and completeness of coverage?

DBE/MBE/WBE

The CM/GC should demonstrate experience in providing meaningful participation and should include a plan for the proposed project. The CM/GC should be encouraged to create innovative initiatives to enhance meaningful participation. AGC suggests that public owners examine AGC's model mentor-protégé program, called the Stempel Plan.

Government Entities

The CM/GC should demonstrate a working relationship with (or knowledge of) the various governmental entities that have jurisdiction over the project.

Local Codes and Practices

The CM/GC should be familiar with the local interpretation of building codes and should understand how local practice will affect construction.

Safety Program

Workers' Compensation Experience Modification Rate (EMR)

What is the CM/GC's EMR record for the past five years? (Anything less than one is considered better than average.)

Safety Plan

Does the CM/GC have an established safety plan? How is it utilized on the project?

Specialty Contractor Safety

How does the CM/GC include specialty contractors and suppliers in its safety plan?

CM Project Approach

The CM/GC's technical approach, including construction means and methods, should be described. The approach should be consistent with the specifications.

Evaluation of the RFP Responses and Preparation for Interviews

When all the responses have been received, the selection committee should review the responses and prepare for the interviews. One member of the committee should be selected to check the references provided and distribute the results.

INTERVIEW PROCESS

The basic premise in the shortlisting process is that each of the firms selected for interviewing is fully qualified to provide the CM/GC services. The interview phase provides the selection panel with in-depth information from each CM/GC firm that it can use to determine the firm best suited for the contract. Use the interview to have the contractors provide specific information on the factors you will use to make a decision, such as who they are, what they do, and how they will accomplish the scope of work listed. Find out what they offer that would make you select them over others.

The selection committee should be given an opportunity to observe whether there is a strategic fit between the public owner and the CM/GC. Interviews should be held with each of the firms included on the shortlist, and all members of the selection committee should review each firm's proposal and should take part in the interview process. The goal of the interview should be to meet the members of the CM/GC's team who would be involved in the project on a daily basis and who would have decision-making authority for the CM/GC. In addition to allowing each CM/GC present its project approach, the interview may be used to clarify any items included in the RFP and/or Management Plan. A set time frame and agenda should be established in advance of the interview, which should focus on the interaction of the project personnel responsible for a successful project. Notification specifying required presentation materials should occur well in advance.

Allocate a minimum of one hour per firm (and usually more) for interviews. Allow adequate time to truly evaluate the people on whom you are going to be relying to complete your team. Give each contractor 30 to 40 minutes to present, and reserve 20 to 30 minutes for questions and answers. It is often helpful to provide the contractor with a list of topics you want the firm to cover, and to request that the proposed project manger participate in the interview.

Give your selection committee time to meet prior to the first interview. The committee members can review the plan for the day and receive any last-minute instructions. Allow time between interviews for the panel to discuss and evaluate what it has heard from that contractor. Scheduling short breaks between interviews will also allow time to fill out evaluations and give the interviewers a few minutes to clear their heads. Breaks also can be used as float time if interviews start running slightly behind.

Reserve a conference room large enough for your interview team and approximately five representatives from each contractor: the project executive, the project manager, the project supervisor, and the preconstruction person. If possible, allow the contractor five workdays to prepare for the interview.

Your objective is to evaluate the chemistry of the team. Look for expertise, personalities, and aggressiveness; try to determine whether these are people with whom you could work productively.

Try to draw out from each contractor the firm's overview of the project and an explanation of how its involvement would add value to the project. Ask any questions you may have prepared from your review of each contractor's proposal.

A note of caution during the interview phase: it is important to review with the selection committee the criteria established by the RFQ/RFP. The judging of the shortlist proposal and presentations must follow these criteria. Owners and selection committees that decide, even with good intentions, to change or deviate from the public notice selection criteria are exposing themselves to possible accusations of impropriety, or even to litigation.

EVALUATION AND SELECTION SUGGESTIONS

The selection process is central to identifying the CM/GC firm that will provide the maximum value to the public owner. It is crucial to a successful project that the public owner take the responsibility to establish a quality selection committee and allow adequate time and resources for the committee to do its work. The selection committee will establish the selection schedule, identify the evaluation criteria, release the solicitation, evaluate and rank the offerors based on their qualifications, select from these the best qualified firms to submit proposals, review and rank the proposals, and recommend the offeror who represents the greatest value to the public owner. Time and quality of effort invested in this phase pays back huge dividends in the form of a greater likelihood of a successful project.

It is critical that one set of selection criteria is established and published to the shortlisted teams, and that it is followed. Many times during the interviews and the final selection meetings, the selection committee will want to change or modify the selection criteria. This is never good practice. The teams are competing in good faith, and are spending several thousand dollars apiece. To change the criteria at the last minute to favor one over the other is unfair—and may result in litigation.

The Selection Committee

The selection committee should consist of people who are or will be stakeholders in the project. This group may include representatives of the public owner and of the end user of the facility. The ideal group includes people directly involved with the project on a day-to-day basis who will have decision-making authority during the course of the project. Don't forget to include the architect in the selection process if the CM/GC is selected after the architect, or vice versa: if the CM/GC is selected first, make sure that it is involved in the selection of the architect and the engineers.

It is highly recommended that you include a representative of the public owner who is there solely to ensure the fairness of the process. Often this person has a procurement background and is not a member of the end-user organization.

Another practice growing in popularity is to have the selection committee participation of an industry representative who is not competing for the project. This person usually represents a peer firm of the competing firms. Though this committee member may not have a vote, the industry representative does participate as a member of the committee throughout all steps of the process.

Led by a chairperson appointed by the public owner, the selection committee should agree on the interpretation of the selection criteria in the solicitation and should be prepared for the significant time commitment that the selection process will require. The selection committee chair's role and responsibilities are crucial, as that person will keep the selection process on schedule and ensure that each committee member thoroughly understands the procedures to follow for a fair and uncontested selection.

Before making the final selection, the committee may authorize technical experts to review specific aspects of the submittals and provide input to the committee members. This input can be considered in making the final selection. In order to maintain the integrity and credibility of the committee, it is important that the selection committee have full and independent authority to make a

final selection. Experience has shown a best practice to be that the committee's decision should not be overridden by a board, commission, or other public official.

The Selection Schedule

The CM/GC delivery system is often selected when the project schedule is a primary concern for the public owner. The selection schedule should reflect this appropriately. The RFQ and RFP should include a schedule for the decision- making process and the selection committee chair should make every effort to adhere to it. Even so, firms must be given reasonable time to respond to a solicitation. The public owner would be wise to provide a list of all important dates, including the dates of the interviews in the public notice as well as the RFQ/RFP. Doing so is in keeping with the public owner's recognition that time invested in this phase is less costly than time spent in correcting trouble on the project. Depending on the amount of information requested, two to three weeks is usually sufficient for firms to prepare responses to an RFQ or RFP. Specific objective criteria for ranking and narrowing the field of responders should be developed prior to issuing an RFP.

The selection committee members should be thoroughly familiar with the evaluation criteria and should be ready and should allow sufficient time to evaluate submittals promptly. The amount of time required will depend upon, again, the detail requested. The selection committee must make realistic time allowances for a quality evaluation.

Final selection should be made immediately following interviews. The successful and unsuccessful CM/GCs should be notified at approximately the same time.

Evaluation Criteria

Very specific, objective evaluation criteria should be described in the solicitation (Project Definition Material). All criteria should be listed in the order of importance to selection. Only evaluation criteria listed in the solicitation should be considered in ranking proposals. In determining the criteria, the public owner should represent project priorities and should indicate its intentions to achieve maximum value for the public. The following criteria might be considered:

Price and Fee

Price may be a factor in selections, but it is important to understand what the term "price" includes. When applied to construction, it actually includes five elements: 1) the CM/GC's gross profit (the constructor's fee/profit and home office overhead); 2) the general conditions or projectspecific overhead cost of the particular project; 3) the cost of preconstruction services; 4) the constructor's contract award contingency; and 5) the cost of the work. Selection of the CM/GC might be based solely upon the qualifications of the firm (pure Qualifications-based Selection or QBS), or the selection based on some consideration of the fee and general conditions.

Some selection processes might also give weight to the CM/GC's estimated cost of work. For this estimated cost to have any meaning, there must be a greater degree of completion of the construction documents and, consequently, a lesser degree of involvement of the CM/GC in the preconstruction phase. In large part, the fee compensates the CM/GC for the risk it assumes in the process. Consequently, the greater the risk, the larger the fee the CM/GC will likely propose.

While price is always important because of budgets and public fiduciary responsibility, the public owner should carefully balance the complexity of the project and the quality and technical capabilities of the competitors to determine which offeror is most likely to provide the maximum value to the public. This determination can create misunderstanding among all parties if expectations are not made equally clear to all in advance. A cost and fee matrix, with a list of items included in the general conditions and those items considered to be a cost of the work, should be provided. (See Appendix B for Sample Project Cost Matrix.) Fees based on a percentage of the work should be considered with the overall scope of the project in mind. A lower fee percentage combined with a high-cost producer may not be as good a value to the public owner as a higher fee percentage with a low-cost producer. For this reason, it is not recommended that the fee percentage be made the sole determining factor in the selection process.

When the public owner must consider price in its selection process, fees should be included in each CM/GC's original proposal. One way to consider price is to require a proposal on the percentage. At the time of the GMP, convert a percentage fee into a lump-sum fee to cover the CM/GC's profit and general overhead and either a monthly not-to-exceed amount or a fixed percentage of the construction cost amount to cover the cost of the general conditions. This fee should be established at the guaranteed maximum price.

Technical Evaluation

A technical evaluation judges the merit of each firm based upon how well its submittal addresses the evaluation criteria in the solicitation. Evaluators on the selection committee should judge each firm's thoroughness in addressing the criteria, as well as each firm's demonstration of ability to follow the instructions in the solicitation for its submittal. Firms that fail to follow solicitation instructions might not be worthy of the public owner's trust to follow construction directives after winning a contract, either. It is strongly recommended that the technical evaluation be done prior to and independently of the review of the CM/GC's price proposals.

Management Plan and Project Schedule

Management Approach

The selection committee should evaluate each firm's complete management approach. This assessment should include an evaluation of a firm's scope of proposed services based on the requirements of the project and keyed to the owner's needs.

Project Schedule

If the project schedule is based on predetermined milestone dates (e.g., the opening of a school year), a bar chart schedule submitted with the proposal would be helpful, but should not be mandatory. Alternatively, if the final end date is undetermined, a bar chart schedule demonstrating the CM/GC's anticipated logic and sequencing is crucial. It is also helpful to the selection committee if the CM/GC is able to identify schedule requirements of the public owner and design team

and provide GMP drawings, construction drawings, governmental approvals, owner-furnished equipment, etc. If any of these delivery dates are known before the RFP is issued, they should be included. The RFP should clearly state whether overtime or shifts should be used to complete the project.

Past Experience

The selection committee should evaluate the relevant experience of each firm and the firm's key personnel slated for the project. When establishing the weight of this criterion, care should be taken not to unnecessarily disadvantage firms that may be newer or smaller.

Past Performance

The selection committee should evaluate each firm's past performance. In the solicitation, firms should be asked to provide a limited number of relevant projects (generally two to five). To promote candor, proposers should be required to provide written releases for each reference submitted. During the proposal evaluation phase, the public owner should also identify other knowledgeable and objective sources as past performance references. To ensure fairness and consistency in the evaluation process, the selection committee might elect to schedule a past performance information meeting with each of the offerors. During this meeting, any information that would result in a less-than-neutral past performance rating for the CM/GC should be discussed. The CM/GC should be given three days following the past performance information meeting to provide any supplemental or explanatory information. The selection committee members should consider this information in their final scoring of each offeror's past performance information.

Interviews

The chair of the selection committee should expect to call a meeting of the committee at least three times prior to the interviews. 1) The initial meeting should be an orientation to the project, the solicitation, and the selection process. This meeting is especially crucial for members new to the process. Selection committee members should learn what to expect and what is expected of them. 2) A second meeting will establish the shortlist, based on responses to the RFQ. 3) A third meeting may be helpful after each selection committee member has evaluated proposals from the shortlisted offerors, to confirm whether all shortlisted firms should be invited to interview. What's important is not the number of meetings, but that these things happen. The selection committee might determine that a firm that had been shortlisted, based upon the proposal or other good evidence, has no chance of success. Such a firm should be spared the expense of interviewing.

Firms chosen for interviews should be issued an invitation to interview, giving specific schedules. The selection committee should prepare to make each interviewed firm's experience as nearly equal as possible. The selection committee should establish a set of questions to ask each firm and discuss evaluative criteria specific to the interview phase.

During the interview, each firm should be told again its time limits and the format of the interview—a brief reminder of information that should also appear in the invitation to interview. The

chair must ensure that the firms and the selection committee adhere to the established interview format. A best practice might be to limit the time a firm has to present, making sure that the selection committee has time to ask its questions.

It is crucial to a quality selection interview that the selection committee prepare good, relevant questions to ask. If computers are allowed, make it clear that any computer problems will subtract time only from the firm's presentation period, not from the selection committee's question time.

After each interview, each selection committee member should review notes taken and should conduct a preliminary scoring of the firm. As a body, the selection committee should then deliberate briefly to compare notes. To allow time for this important activity, interviews should be scheduled no closer than 30 minutes apart.

As the interviews proceed, selection committee members may find it useful to perform a "pairwise" comparison between two firms, each in turn, to establish an evolving rank order.

Final Evaluation and Selection

After all firms have been interviewed and dismissed, best practice strongly suggests that the selection committee come to a final group ranking before leaving the interview room. The selection committee should deliberate, reviewing as a group all evidence to the extent deemed necessary, including the responses to the RFQ, the proposals, and any references. Each selection committee member should submit to the chair a final personal ranking of the firms. A best practice is for the final group ranking to be determined from an addition of ranks (i.e., 1 to x) and not from a crude addition of raw scores from each selection committee member. This technique serves to standardize individual scores to an equal scale that can be legitimately added.

Upon conclusion of selection committee work, each member should endorse their official documentation of the group's decision.

CONTRACT PERFORMANCE

CM/GC Services to Be Provided During Preconstruction

Public owners expect preconstruction services to be predictable and objective in their decisions.

Scheduling

Immediately following CM/GC selection, the CM/GC should develop a schedule. The CM/GC should consult the A/E, the public owner, governing entities, and other project stakeholders in order to understand all project activities and projected timelines. At a minimum, the schedule should be updated monthly.

Partnering/Collaboration

An intrinsic part of the CM/GC process is building an effective team comprising the designer, owner, and constructor. One of the more effective methods has been the concept of "partnering." A partnering session helps the team understand the priorities, goals, and expectations of each participant. There are bound to be some disagreements between team members during the project, so it helps for them to have a common resolution process that includes a progressive series of negotiations. A dispute is first considered by the onsite project team. If not resolved at that level, it goes up to higher and higher levels of management. In this way, the partners negotiate solutions rather than achieving resolution through more formal arbitration or litigation options.

Another way to encourage collaboration is to develop a clause in the contract that establishes a commitment to work together towards a Project Budget. This clause allows each party (the A/E, CM and owner) to commit to the others in writing that they all will work together to achieve the project scope for the fixed limit of construction cost. This means that the contractor will continue to work with the A/E and the owner to manage the costs and schedule, that the A/E will work to achieve the scope and budget, and that the owner will modify the scope to help the A/E and the CM meet goals. This clause keeps everyone working together to solve the issues on the project. No one can just give up and walk away, as each is committed to work through the problems rather than leaving them unresolved or allowing them to become issues that tear apart the team's collaboration.

Value Analysis

During design, the CM/GC should evaluate the budget and make suggestions for cost-saving changes or value enhancements.

System Analysis

The CM/GC should evaluate major systems and make design recommendations to the public owner and the A/E about which systems are most cost-effective.

Constructability Reviews

The CM/GC should perform periodic constructability reviews during the design development phase and through the construction document phase. These reviews ensure that good building practices are incorporated into the documents. They also identify whether project sequencing is viable and design elements can be built as drawn. In performing constructability and design reviews, the CM/GC does not assume the liability of the designers of record. The CM/GC is responsible for conducting drawing coordination reviews to ensure that project construction management can be administered within the available construction coordination contingency funds. Typically, the CM/GC is "at risk" and is liable for construction coordination costs that exceed the agreed-upon coordination contingency amount.

Design Coordination vs. Construction Coordination

The CM/GC builder is not the designer of record. Sometimes these roles can become blurred in the course of constructability reviews. Unfortunately, it is impossible to give examples that would cover every possible scenario, and this topic often falls under the category of "I can't define it, but I know it when I see it."

In general, the architects are responsible for coordinating their documents to verify that the architectural, structural, and other drawings and specifications are in alignment when it comes to design intent, dimensions, and materials. During constructability reviews, the CM/GC provides its expertise to verify that what is drawn can ultimately be constructed to meet the desired outcome safely, expeditiously, and cost-effectively. The CM/GC's recommendations to the owner and architect should be incorporated into the documents. Once the owner approves the changes it is the architect's responsibility to incorporate those modifications or changes through the entire set of documents. It is the CM/GC's responsibility to make sure that the design documents are constructible within the Guaranteed Maximum Price (GMP).

During construction, it is the CM/GC's responsibility to get the work done in an efficient manner that complies with the project documents and with a total cost within the GMP. The GMP includes a CM/GC contingency amount available to the contractor for construction coordination.

Even with the best of intentions on the part of the owner, architect and CM/GC, errors, omissions and coordination problems will exist. This is one of the reasons for the contingencies as described within this document.

Progress Document Reviews

During the entire design process, the CM/GC should make periodic reviews of the drawings to advise the designer on design decisions that do not fit within the project budget or schedule.

Specialty Contractor Involvement and Prequalification

The CM/GC should solicit specialty contractor interest in the project, and should prequalify interested and qualified trade contractors. Qualification criteria should include experience, past performance, financial capability, technical capability, and ability to deliver high quality. If the public owner or the A/E has an interest in including specific specialty contractors, they should be solicited and prequalified on the same basis as other specialty contractors.

Specialty Contractor Bonding Policy

The CM/GC should, with the public owner, establish a bonding policy concerning specialty contractors and other trade contractors. The CM/GC should make clear to public owners the differences between bonding and insurance. State bonding laws should be consulted when addressing this issue.

Periodic Cost Estimates and the "Project Team Estimate"

It is critical, and also consistent with the spirit of collaboration encouraged throughout these guidelines, that everyone on the team work towards a budget of which they can take ownership. The budget estimate at this time is referred to as the "Project Team's Estimate" and should be developed with input from all members of the project team, including the owner (and its users), the A/E and the CM/GC, along with any key subcontractors that may be part of the team during the design.

Before the "Project Team's Estimate" is established, the CM/GC and the A/E team should prepare new cost estimates at the conclusion of the schematic design or early design development. The owner should have the A/E team develop its own estimated construction costs, either in-house or by hiring a cost consultant. In some cases the owner may also want to hire a separate third-party cost consultant to prepare an estimate.

Estimates should be prepared so that comparisons are easily understood by the public owner. A recommended standard format for construction cost estimates is one that organizes the estimate by major building component or system, such as the CSI UniFormat.

Still working in the "pre-Team Estimate" phase, the project team (owner, A/E, and GM/GC) should resolve any significant differences among the estimates before proceeding to the next design phase of the project. Resolving these issues may include changes in project scope as the team works to develop the "Project Team Estimate" that meets or exceeds the owner's needs. This reconciled estimate to which the entire team agrees is referred to from this point forward as the "Project Team's Estimate."

Once the Project Team's Estimate has been established, it is recommended that the owner have the CM/GC take responsibility for maintaining and updating the estimate at critical milestones for the project. It is crucial that the entire team review the updated estimates after every major design milestone. It is also critical that the A/E continue to participate in these estimate reviews and take ownership of them throughout the rest of the design.

If it deems it necessary or is required to do so, the owner may have the A/E team continue to update its own estimate and/or have its own cost consultant conduct an update. (Experience has shown, however, that after the "Project Team's Estimate" has been developed, the effort to maintain these other estimates does have a point of diminishing return. The most successful projects have team members that all take ownership for the "team's" estimate.)

Setting the Guaranteed Maximum Price (GMP)

A guaranteed maximum price is not usually included in the initial CM/GC contract. The CM/GC will enter into the project with an agreement to provide pre-construction services only. Early in the project, the owner, architect, and CM/GC must be aware of the project construction budget, but the CM/GC does not have a contractual obligation to construct the project within a GMP until later in the process. The point at which the GMP is set can vary from very early on in the project (such as the design development stage), to very late (as towards the end of construction drawings, or early in the construction phase). The GMP should be established at a point agreed upon by the public owner, architect and CM/GC. When considering when to establish the GMP, the public owner should understand that earlier on the GMP will be higher because it is based on less complete drawings. This therefore requires the CM/GC to assume greater risk, which increases the CM/GC contingency. An earlier GMP will usually include less scope for the guaranteed price because of this risk. The establishment of a GMP late in the design process or early in the construction phase will allow the CM/GC to shed risk through the buyout process, resulting in less contingency being included in the GMP to absorb risk.

In the event that the owner and CM/GC cannot agree to a GMP, the owner may terminate the CM/GC contract and negotiate a contract with the second selected contractor. The further along in the design process, the more difficult it is to make this kind of drastic change.

Once the GMP is established and the CM/GC contract is modified to include the GMP, the CM/GC is under contract to complete the construction within the GMP as defined by the project design documents complete to that point in the process. The GMP includes the total of all subcontracts, the CM/GC general conditions, the CM/GC fee, and the CM/GC construction contingency. Any changes to the GMP will occur only as the result of changes in the scope of the project or changes due to latent conditions or other factors beyond the control of the CM/GC.

Therefore an early GMP will carry a greater risk for the CM/GC, and may result in more pressure to focus on costs or development of contingency, which may limit or reduce the owner's scope for the project. Additionally, with an early GMP the documents are less defined and will therefore be open to more requests for information from subcontractors or more design modification as the project design proceeds. This too could result in cost and scope increases. A late GMP poses less risk for the CM/GC, as the documents are more complete and/or large portions of the project have been procured.

The public owner might choose an early or late GMP for a variety of reasons. It is critical that the public owner assess the risk its organization is willing to accept when developing a GMP, and balance it with the benefits derived. The public owner's contingency should be adjusted accordingly to accommodate the desired direction or need in establishing an early or late GMP.

Schematic Documents (SD) Budget

The CM/GC should prepare one estimate after the completion and acceptance of the schematic documents. The schematic estimate is a systems estimate based on the cost history of the CM/GC for similar buildings and similar systems. The estimate should include all items normally found in the type of building being constructed, although not all of them need to be listed in the documents. The CM/GC should also include an adequate contingency, and may wish to draft an outline specification definition of what is included in the estimate.

Design Development (DD) Budget

The CM/GC should be ready to prepare a new estimate and several interim updates during this stage. The estimates should be on a full CSI UniFormat form of building components, and should include full details for items shown and anticipated in the budget. The outline specification should be updated to demonstrate the evolution of the building. An adequate contingency should be included.

Construction Documents (CD) Budget

This budget provides final instructions on the public owner's and designer's construction expectations. It should include complete bidding of all trade packages, and pricing based on complete scope evaluation and quantity take-offs from the final design documents. The CM/GC should explicitly identify a contingency that could cover construction risk sharing assumed by the public owner and CM/GC.

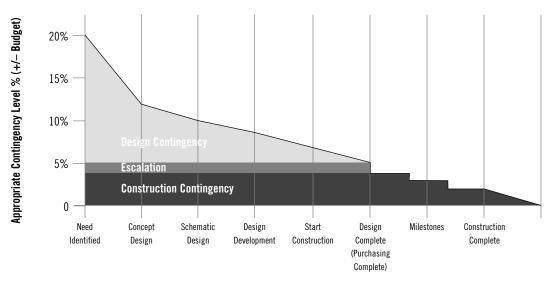
Contingency

Design Phase Contingency

There is acknowledgement in the construction industry that project design is an evolving process. At project inception, most design elements are purely conceptual. The architect and the CM/GC therefore use past and current similar cost units to estimate the construction value. As design progresses, project details become more defined and construction costs can be estimated more closely. The design phase contingency will decrease over the course of the design process (conceptual, schematic, design development, and construction drawings). The design contingency should start during the schematic design phase at about 10 to 15 percent of the maximum allowable construction cost (MACC) and should be decreased as the design process progresses. Its purpose is to keep the scope within available funds throughout the design process. As the project becomes better defined, the construction costs can be better predicted and less design contingency is needed.

When the design is complete and bid packages are ready, a design contingency is usually reserved to help ensure that the total cost of all the subcontracts comes in within the MACC. After all subcontracts are "bought out," there may be "buy-out savings" (the difference between the MACC and the total value of all subcontracts). After all subcontracts are bought out, the design contingency funds become part of the buy-out savings. The buy-out savings can either be applied to the CM/GC's coordination contingency or returned to the owner to be used in the owner's contingency

for use during the construction phase. The allowable use of buy-out savings should be carefully defined in the CM/GC contract.



Project Stage

Source: Holder Construction Company

Construction Phase Contingency

Construction contingency can be defined under two categories: the CM/GC's contingency and the public owner's contingency.

CM/GC Contingency

The CM/GC contingency is typically assigned for use by the CM/GC to pay for subcontractor coordination and other project issues that are within its control. Use of the CM/GC contingency includes subcontract changes that are caused by insufficient coordination of the design drawings. The construction contingency is available to the CM/GC in order to deliver the documented scope of the project within the GMP and within the schedule for completion. The CM/GC's construction contingency is part of the GMP and is not available for owner-directed design or scope changes.

The Construction contingency should be negotiated between the CM/GC and the owner. After an assessment of risk is made by both parties, the CM/GC contingency amount should be identified in the contract. The CM/GC contingency will range from 5% to 10% depending upon the complexity and risk associated with the project.

The CM/GC contingency is available to the Contractor to cover increased costs incurred as the result of causes beyond its control, such as lost time, increases in bid or negotiated contracts, and acceleration. The CM/GC contingency may also be used to alleviate costs for correcting defective, damaged or nonconforming work; design errors or omissions; subcontractor defaults and unanticipated general conditions expenses. It is important for the owner to define in the contract documents

allowable use of the CM/GC contingency, and for the CM/GC to give the owner prior notice when applying the CM/GC contingency funds.

Upon completion of the project and final acceptance, any unused CM/GC contingency is usually returned to the owner.

Owner's Contingency

Architectural documents are not perfect, and the public owner may need to make changes to them for a variety of reasons, ranging from latent conditions to changes in scope. The owner's contingency is for the owner's use in paying for design errors or omissions, unforeseen conditions and scope changes. It is separate from the CM/GC's contingency, is controlled by the public owner, and is transmitted to the CM/GC in the form of a change order, which typically increases the GMP. Historically, the public owner's contingency has ranged from 3% on new construction to 10% or more on large renovation projects where the unknowns of the project are significant. It is important for the public owner to have an experienced individual establishing and managing contingency expenditures in a CM/GC environment.

There is a direct relationship between (a) the size and number of change orders on a project and (b) the quality and completeness of the architect's information for the owner. Therefore, the more accurate and complete the project definition is (as defined in the public owner's responsibilities described above), the lower the overall percentage of change orders may be.

CM/GC Services During Construction

Team Management and Coordination

The CM/GC should be responsible for leading the team during the construction process. The CM/GC should hold weekly meetings with the public owner, the A/E, and the CM/GC. The CM/GC should prepare meeting minutes that include action items and responsibilities.

Scheduling

The CM/GC should update the schedule monthly—or even more frequently, if warranted. The schedule should indicate work completed, work to be done, and project status in relation to the schedule.

Cost Forecasting

One of the strongest arguments for using the CM/GC early in the preconstruction process is its fore-casting ability. The CM/GC, with its team of estimators, is always monitoring the construction market, and is in a position to advise the public owner as to when to enter a specific market to avoid increasing costs, or to head off expected activities that will result in a higher price. This service alone can result in savings that will easily pay for the preconstruction services.

Cost Control and Change Order Management

The CM/GC should establish a cost control system that enables the public owner to review—by trade—current costs in relation to final cost projections. The CM/GC also should establish a change order control system to advise the public owner of potential added costs, thereby enabling the public owner to make knowledgeable project decisions. The change order control system should be reviewed weekly in the project status meeting. Before submitting change order requests to the public owner, the CM/GC should review all specialty contractor and supplier submittals to verify that they, in fact, represent changes that have occurred as a result of latent conditions or project scope changes. Subcontract changes necessary for coordination should be paid for with the CM/GC contingency funds after mutual agreement between the CM/GC and the owner.

Submittal Process

The CM/GC should institute a reasonable submittal process after consultation with the A/E. To facilitate timely review and response, the CM/GC should provide the public owner and the A/E, in advance of submittals, with a list of anticipated submittals and submission dates.

Subcontracting

The CM/GC should comply with the public solicitation and award requirements of the public owner, except as otherwise stipulated by the public owner and/or public law. As discussed earlier, the public owner is encouraged to allow alternative procurement methods at the specialty contractor level when possible. This can include best-value or Qualifications-based selections and/or the use of Design-Build. The same rules of openness and fairness that apply to the selection of the CM/GC will apply to the trade contractors. The CM/GC should analyze the proposals and/or bids for responsiveness and interview Specialty Contractors concerning their scope where appropriate. Based on this review, the CM/GC should submit a list of recommendations to the public owner. Following public owner approval, and consistent with applicable state laws, the CM/GC should execute the contracts. If the CM/GC wishes to "self-perform" any subcontract work, it should submit a sealed bid and compete for this work along with other interested subcontractors.

Field Management

The CM/GC should provide quality supervision and management for all field activities. This includes onsite trades coordination, self-performed work, efficient use of materials, and coordination of other parties.

Safety Programs

The CM/GC should be responsible for the overall safety of the project, including that of all parties legally on the project site. The CM/GC should establish whatever safety programs are needed to ensure a safe and productive work site.

Quality Programs

The CM/GC should monitor compliance with all project-established quality standards. This includes standards established during preconstruction, included in the contract documents, and included in the specialty contractor agreements. The CM/GC should also monitor specialty contractor compliance on warranty repairs.

Project Close-Out Process

The CM/GC should establish a close-out checklist of all required items and activities in the contract documents. The CM/GC should use the checklist to keep the public owner and the A/E informed of close-out phase progress during weekly OAC meetings.

Warranty Period Services

The CM/GC should manage any residual warranty work required pursuant to the contractual warranty period, typically for one year following substantial completion. The CM/GC is also responsible for complying with applicable latent defects statutes and statutes of repose. Particularly for public projects, establishing a warranty reserve makes for efficient funding.

CONCLUSION

AGC and NASFA endorse these guidelines for purposes of using CM/GC for building construction in the public sector. AGC and NASFA caution that each project is unique. There is no single delivery system that is best for all situations. To facilitate understanding of each of the major delivery systems and when their use is desirable, AGC has published the textbook *Project Delivery Systems for Building Construction*. AGC and NASFA recommend this textbook to public and private owners.

APPENDIX A: SAMPLE INSTRUCTIONS FOR A GENERAL CONDITIONS PROPOSAL

- A. The general conditions proposal is to be considered as a fixed or not-to-exceed amount and shall be inclusive of the project scope of work as defined by this CM/GC RFP.
- B. The general conditions proposal is to be based on an XX-YY months construction schedule (as found in Section XX—Project Description).
- C. The general conditions proposal is to be inclusive of both project site and home office costs required to execute the requirements for the project.
- D. The general conditions proposal shall clearly identify any exceptions or exclusions to the general conditions requirements defined in this CM/GC RFP, along with any proposed modifications.
- E. The general conditions proposal shall include unit rates for all possible line items that would be used as a basis for an increase in the general conditions amount should a major change in the project scope of work take place.
- F. The proposal must delineate each CM/GC team member's staffing costs. Such staffing costs must be represented as hourly rates reflecting direct salaries plus burdens, minus any markup for overhead and profit. Also to be included are the durations of assignment anticipated for each member of the CM/GC team.
- G. The proposer shall incorporate into the general conditions proposal the following minimum requirements for the duration of the project:
 - Project management and supervision;
 - Construction management;
 - Preconstruction services;
 - Specialty contractor prequalification and selection;
 - Procurement management and administration;
 - Budgeting, estimating, and forecasting;
 - Project accounting;
 - Scheduling;
 - Safety engineering, training, management, and administration, along with all required safety equipment and materials (plus costs for any incentive related safety awards);
 - Quality engineering, training, management, and administration;
 - Start-up, commissioning, and turnover management & administration;

- SBE/MBE/WBE participation, coordination, and management;
- Office management;
- Clerical and secretarial support;
- Document control;
- Miscellaneous support labor and coordination, including any traffic control and temporary street closure requirements around the project site;
- CM/GC personnel relocation expenses;
- CM/GC personnel travel and per diem expenses, including source inspections costs;
- Surveying and layouts, including establishing and maintaining horizontal and vertical control at all times during construction;
- Mobilization, demobilization, and janitorial services for all temporary project facilities, including the CM/GC team's temporary project site office(s);
- Mobilization and demobilization of the CM/GC team's temporary project site office(s) and all
 associated office furniture (plus at least two clearly designated visitor parking spaces);
- CM/GC's copy machines, fax machines, printers, scanners, paper shredders, etc., as required to effectively execute the work;
- Stationary telephone set-up and monthly service charges for the CM/GC's temporary project office(s);
- Pagers and cellular phones for selected CM/GC project team members;
- Vehicles and their associated maintenance, repair, fuel, and insurance costs for selected CM/GC project team members;
- Dumpster rental and trash removal/recycling;
- Security system(s) installation and monthly charges for all required temporary project offices;
- CM/GC project office supplies;
- Postage and express mail;
- Internet service provider charges;
- CM/GC project site office computers and their associated networking/ infrastructure;

- All project site computer software required to execute the work for the project;
- Installation, daily inspection, and removal of miscellaneous temporary barricades, fencing, partitions, and other means of temporary separation/isolation on the site during construction, including any temporary covered wooden walkways for public sidewalks;
- Installation, daily inspection, and removal of miscellaneous temporary dust protection/control equipment and materials;
- Temporary parking and laydown area's administration, maintenance, and restoration;
- Installation, periodic inspection, and removal of temporary electrical power, including that required for the construction of the project and to adequately supply all temporary offices. The CM/GC will provide any switches or equipment required by the service provider to initiate service to the project site, plus all usage and temporary distribution costs. The CM/GC shall be responsible for temporary electrical service through the date of beneficial occupancy of the facility by the public owner;
- Installation, periodic inspection, and removal of temporary construction and project site
 potable water, including usage and distribution costs (plus ice, cups, and potable drinking
 water dispensers, as required);
- Miscellaneous dewatering requirements;
- Installation, periodic inspection, and removal of temporary sanitary systems, including usage and distribution costs (plus any and all costs for pumping and hauling of temporary toilet facilities;
- Temporary telephone system set-up and usage fees, including both stationary and mobile phone services;
- Project site two-way radios;
- Digital photography equipment for frequent visual recording of construction progress;
- Any non-digital photographic development costs;
- Installation, periodic inspection, and removal of temporary lunch/break area facilities, including janitorial services and the specific requirements of any individual trade labor organizations;
- Arrangements and provisions for onsite food service for the project labor force;
- Storage facilities, both on and off site, as required;
- Daily site clean-up | The CM/GC shall maintain a neat and orderly construction site to the satisfaction of the public owner, and it shall be **at all times** free from debris, litter, and

clutter. The CM/GC shall also keep the roadways and project parking lots on and around the project site clean and suitable and will provide washing of trucks and/or related equipment as required;

- Building clean-up | The CM/GC shall ensure that the facility maintains a level of cleanliness deemed acceptable by the public owner at all times, from the inception of construction through project completion;
- Final facilities cleaning | The CM/GC shall provide for final interior and exterior cleanings of the building and parking facilities to the satisfaction of the public owner;
- Sensitive project information removal/destruction | The CM/GC will provide for the removal and proper disposal of all sensitive project information and will obtain approval for the removal/disposal process from the public owner prior to beginning the work;
- Installation, periodic inspection, and removal of temporary site lighting, including specific task lighting;
- Installation, periodic inspection, and removal of emergency lighting;
- Small tools purchases and tool rentals;
- Safety and security trailers | The CM/GC shall provide office trailers adequate for housing safety and security personnel and will also provide onsite safety training, project orientation, and personnel badging;
- Emergency Response Team (ERT) program | The CM/GC will develop and administer a site ERT program in which designated personnel are trained to respond rapidly to an emergency situation. Include costs for ERT drills on at least a monthly basis to maintain the team's readiness and efficiency at all times during construction;
- Winterization/weather effects mitigation | The CM/GC will provide winterization and other related undertakings as required to mitigate any adverse impacts to the schedule from the effects of weather;
- Snow removal equipment and materials and associated labor costs;
- Project security | The CM/GC shall develop and administer a security program for the project. The program shall provide adequate protection of the site through the provision of a 24-hour/day x 7 days/week security arrangement. Security personnel/systems shall be provided, as required, to prevent the entry of any unauthorized persons or vehicles to the project site. The security program shall also provide reasonable protection against materials and equipment theft and vandalism at the project site;
- Project photographs | The public owner and the CM/GC shall agree upon the frequency, size, and vantage points of project photographs prior to completion of the contract;

- Time-lapse video | The CM/GC will provide time-lapse video for the entire duration of the project, and will confirm the costs of this process with the public owner prior to making any commitment with service providers;
- Site signage | The CM/GC will provide all site signage, including directional, safety, informational, and warning signs;
- Fire extinguishers | The CM/GC will provide sufficient quantities and types of fire extinguishers as required by the authorized government agencies;
- Administration of drug testing and physicals program | The CM/GC will submit a plan for public owner review and approval prior to its implementation.
- Badging program | The CM/GC will develop and maintain a program for the badging of all personnel and vehicles that require authorization for entry to the project site. The CM/GC shall completely administer this program during the project. The CM/GC shall submit the proposed badging program plan to the public owner for approval. The badging program shall incorporate authorization levels to be earned with the successful completion of various training courses. The CM/GC shall provide all badging equipment and materials for the project;
- Site access/orientation training | The CM/GC will provide training for all individuals as a prerequisite to their entry to the site. The training shall include orientation training, safety and awareness training, and any other training deemed necessary;
- Plan and document reproduction | The CM/GC will provide for all plan and document reproduction during the project;
- Project Web site | The CM/GC will provide a project-specific Web site for the duration of the project. The owner, the architect/engineer, and the CM/GC will use the Web site to post and exchange project-specific information during the project. The Web site must provide various levels of security/access. Include the fixed monthly fee charged by the Web site host provider (e-Builder, Project Talk, Blueline Online, or similar hosting service provider) as well as a monthly allowance for regular Web site administration and maintenance;
- CM/GC miscellaneous items | The CM/GC will provide an itemized list of any additional general conditions line items required for a complete and successful project, as well as their respective associated costs;
- Provide a minimum of four site-wide project milestone achievement celebration events (i.e., a catered BBQ, catered luncheon, etc.);
- Partnering facilitation | The CM/GC shall enter into a subcontract with a project partnering facilitator to facilitate, coordinate, participate in, and document partnering sessions during the design and construction phases of the project. The CM/GC shall request from a minimum of three potential partnering facilitators detailed proposals for providing partnering facilitation services (including a delineation of the deliverables that the facilitator will provide as part of its responsibilities) and will review such proposals with the public owner. The public owner

shall approve the selection of the partnering facilitator before the CM/GC incurs any costs for such services.

- Partnering sessions | The general conditions proposal will include all costs associated with the CM/GC's engagement of a partnering facilitator to plan, conduct, and document a two-day initial project partnering session and to conduct quarterly half-day partnering sessions throughout the project. The initial partnering session will include, but will not necessarily be limited to, the development and finalization of a project mission statement, vision statement, and a partnering charter outlining project-specific communication protocols, project-specific dispute resolution procedures, and other project procedures. The charter is expected to take more than one partnering session to finalize. The public owner shall be responsible for securing the location(s) of the partnering sessions and any facility rental costs associated with such location(s);
- The proposer shall include in the general conditions proposal all costs associated with enabling senior CM/GC staff to attend the partnering sessions and for any planning and follow-up activities by the CM/GC's project team associated with the partnering sessions; and
- It is not acceptable for the CM/GC to include items in the general conditions costs (for payment by the public owner) and then subsequently charge specialty contractors for the same items. The public owner will consider such acts of "double-dipping" as a serious violation.

APPENDIX B: SAMPLE PROJECT COST MATRIX

	In Preconstruction	In Construction		
	Services	Services	Cost of Work	By Others
Office Expenses				
CM Field Office, Furniture, & Furnishings		Х		
Office Supplies—Preconstruction	Х			
Office Supplies		Х		
Field Office Equipment & Maintenance		Х		
Public Owner/Architect Office, Equipment & Utilities		Х		
Jobsite Radios/Beepers		Х		
Copy Machine & Maintenance —Preconstruction	Х			
Copy Machine & Maintenance		Х		
Computers, Usage, Software & Maintenance — Preconstruction	Х			
Computers, Usage, Software & Maintenance		Х		
Fax Machine & Service		Х		
Field Office Telephone		Х		
Long Distance—Preconstruction	Х			
Long Distance		Х		
Office Janitorial		Х		
Postage and Expressage —Preconstruction	Х			
Postage and Expressage		Χ		
Plans and Bid Packages (6 sets per bid package)		Х		
Scheduling Expenses		Х		
Construction Photos and Supplies		Х		
Job Travel		Х		
Job Meetings & Ceremony Expense		Х		
Partnering Sessions		Х		
Construction Trade Training Program		Х		
Record Drawings		Х		
Advertising (for bids)			Х	
Messenger/Runner/Courier			Х	

	In Preconstruction Services	In Construction Services	Cost of Work	By Others
Temporary Utilities				· · ·
Temporary Electric Service		Χ		
Temporary Power (Office trailer in const. svcs.)		Х		
Temporary Power (Office trailer in const. svcs.)		Х		
Temporary Water Service		Х		
Temporary Water (Office trailer in const svcs)		Х		
Temporary Water (Office trailer in const svcs)		Х		
Temporary Gas		Х		
Temporary Heat & Ventilation		Х		
Temporary Construction Facilities & Services		Χ		
Cleanup & Dumpsters		Χ		
Safety		Χ		
Audit		Х		
Record Storage		Х		
Public Information Program		Χ		
Testing, Inspection, & Quality Control				
Testing Laboratory Services				Х
Soils Testing & Inspection				Х
Concrete Testing & Inspections				Х
QC/QA Manager		Χ		
Taxes/Insurance/Fees				
Building Permits		Х		
Special Permits, Licenses, & Fees		Χ		
Utility Connection Permits		Χ		
Operational Permits				Х
Easements				Х
Impact Fees		Χ		
Worker's Compensation Insurance		Χ		
Builder's Risk Insurance		Χ		
Insurance Deductibles		Х		
Public Owner's Protective Insurance		Χ		
Liability & Property Insurance for Project		Χ		

	In Preconstruction	In Construction		
	Services	Services	Cost of Work	By Others
Taxes/Insurance/Fees (continued)				
Miscellaneous Insurance		Χ		
Sales, Use & Gross Receipts Taxes		Х		
Performance & Payment Bonds		Х		
Construction Management Labor				
Payroll Tax Fringes	Х	Х		
Worker's Compensation Insurance	Х	Х		
Preconstruction Management Labor	Х			
Construction Management Labor		Х		
Safety Officer		Х		
General Conditions Labor		Х		
Fees				
Legal Fees		Х		
Construction Equipment & Tools				
Levels & Transits		Х		
Field Engineer		Х		
Layout Crew		Х		
Engineering Equipment		Х		
Engineering Supplies		Х		
Layout/Batterboards			Х	
Licensed Survey Layout		Х		
Site Surveys & Soils Report				Х
Permanent Construction				
Trade Contract Cost			Х	
Self-Perform Labor & Materials			Х	
Materials Incorporated in the Work			Х	
Corrective Work			Х	
Punchlist Work			Х	
			Х	

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA



INSTRUCTIONS FOR COMPLETION OF AGC DOCUMENT NO. 250 STANDARD FORM OF AGREEMENT AND GENERAL CONDITIONS BETWEEN OWNER AND CONTRACTOR

(Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Services)

2000 EDITION

The Standard Form of Agreement and General Societions Between Diviner and Contractor (Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Services), AGC Document No. 250 (AGC 250), is a new document that is intended to form an integrated agreement and general conditions document between the owner and the contractor performing work on a cost of the work plus a fee basis with the establishment of a guaranteed maximum price as a limitation on the contractor's compensation. AGC 250 also provides an option for the contractor to provide preconstruction services for the project.

AGC 250, 2000 edition, benefited from an inclusive development process. It was developed with the advice and cooperation of the AGC Private Industry Advisory Council Consisting of design and construction professionals within Fortune 500 companies representing many sectors of the V.S. economy, such as automobile manufacturing, entertainment, banking, insurance, retailing, energy generation and distribution, and health care. PIAC members meet regularly with AGC contractors to discuss construction contracting issues of mutual concern and to participate in the development and revision of AGC standard form contract documents. AGC gratefully acknowledges the contributions of the PIAC owners who participated in this effort to produce this AGC 250.

AGC 250 is interested to be compatible with other AGC 200 series documents and 600 series subcontracts.

GENERAL INSTRUCTIONS

Standard Form

These instructions are for the information and convenience of the users of AGC 250, 2000 Edition. They are neither part of the Agreement nor a commentary on or interpretation of the standard form. The intent of the parties to a particular agreement controls its meaning and not that of the writers and publishers of the standard form. As a standard form, this Agreement has been designed to establish the relationship of the parties in the standard sit-

uation. Recognizing that every project is unique, modifications will be required. See the following recommendations for modifications

Related AGC Documents

AGC 250 is part of the AGC 200 series of contract documents. Consider also using these AGC documents.

AGC Document No. 200, Standard Form of Agreement and General Conditions Between Owner and Contractor (Where the Contract Price Is a Lump Sum) Order No. 1870

AGC DOCUMENT NO. 250 • STANDARD FORM OF AGREEMENT AND GENERAL CONDITIONS BETWEEN OWNER AND CONTRACTOR (Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Services)
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AGC Document No. 205, Standard Short Form Agreement Between Owner and Contractor (Where the Contract Price is a Lump Sum) Order No. 1872

AGC Document No. 220, Construction Contractor's Qualification Statement for Engineered Construction Order No. 716

AGC Document No. 230, Standard Form of Agreement and General Conditions Between Owner and Contractor (Where the Basis of Payment is the Cost of the Work with an Option for Preconstruction Services) Order No. 1880

AGC Document No. 235, Standard Short Form Agreement Between Owner and Contractor (Where the Basis of Payment is the Cost of the Work) Order No. 1881

AGC Document No. 240, Standard Form of Agreement Between Owner and Architect/Engineer Order No. 1885

AGC Document No. 260, Performance Bond Order No. 1895

AGC Document No. 261, Payment Bond Order No. 1896

Legal and Insurance Counsel

THIS DOCUMENT HAS IMPORTANT LEGAL AND INSURANCE CONSEQUENCES, AND IT IS NOT INTENDED AS A SUBSTITUTE FOR COMPETENT PROFESSIONAL SERVICES AND ADVICE CONSULTATION WITH AN ATTORNEY AND AN INSURANCE ADVISER IS ENCOURAGED WITH RESPECT TO ITS COMPLETION OR MODIFICATION. FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS MAY VARY WITH RESPECT TO THE APPLICABILITY AND/OR ENFORCEABILITY OF SPECIFIC PROVISIONS IN THIS COCUMENT.

AGC SPECIFICALLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FINNESS FOR A PARTICULAR PURPOSE. PURCHASERS ASSUME ALL LIABILITY WITH RESPECT TO THE USE OR MODIFICATION OF THIS DOCUMENT, AND AGC SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM SUCH USE OR MODIFICATION.

COMPLETING THE AGREEMENT

Completing Blanks

Diamonds (�) in the margins indicate provisions requiring the parties to fill in blanks with information. The checklist for completion can also be used to ensure important information is not omitted.

Checklist for Completion of AGC 250

The following provisions, identified within the text of the standard form with a diamond (•), require the parties to insert information in order to complete the Agreement.

Article 1	3.4.8	7.3	10.2.4	14.9
2.3.2	3.9.3	7.4.1	11.3.1	15.1
3.1.5	4.7	7.5	11.4.3	Exhibit No. 1
3.1.6	5.4	8.2.2	11.7.1	
3.2	6.1.1	10.2.1	12.4.2	

Modifications

Supplemental conditions, provisions added to the printed agreement, may be adopted by reference. It is always best for supplements to be attached to the agreement. Provisions in the printed document that are not to be included in the agreement may be deleted by striking through the word, sentence or paragraph to be omitted. It is recommended that unwanted provisions not be blocked out so that the deleted materials are illegible. The parties should be clearly aware of the material deleted from the printed standard form.

Wis a good practice for both parties to sign and date all modifications and supplements.

Photocopying the Completed Agreement

The purchaser of this printed, copyrighted document may make up to nine (9) photocopies of a completed document, whether signed or unsigned, for distribution to appropriate parties in connection with a specific project. Any other reproduction of this document in any form is strictly prohibited, unless the purchaser has obtained the prior written permission of The Associated General Contractors of America.

OBTAINING ADDITIONAL INFORMATION

To obtain additional information about AGC standard form contract documents and the AGC Contract Documents Program, contact AGC at 333 John Carlyle Street, Suite 200, Alexandria, VA 22314; phone (703) 548-3119; fax (703) 548-3119, or visit AGC's web site at www.agc.org.

AGC 250

Article 1 AGREEMENT

The date of the Agreement and identification of the parties and the Project are essential information to be accurately inserted in this Article.

Article 2 GENERAL PROVISIONS

The relationship of the parties, the extent of the Agreement, and the definitions of key terms, such as Contract Documents, Final Completion, and Work, are described in this Article.

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AGC DOCUMENT NO. 250 • STANDARD FORM OF AGREEMENT AND GENERAL CONDITIONS BETWEEN OWNER AND CONTRACTOR (Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Services)

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Article 3 CONTRACTOR'S RESPONSIBILITIES

This Article describes the Contractor's general responsibilities for labor, materials, supervision, coordination and construction means and methods, naming of the Contractor's authorized representative, and professional services, if anv.

- 3.2 This Paragraph details the Contractor's responsibilities for preconstruction services, if selected by the parties. As part of those services, the Contractor will furnish estimates of the Project, review of drawings and specifications for constructibility problems, create schedule for procurement of long-lead items, and develop trade contractor interest in the Project.
- This Paragraph addresses the establishment of the Guaranteed Maximum Price (GMP) for the Project.
- The basis of the GMP is detailed. 3.3.2
- This Paragraph enumerates the Contractor's responsibilities regarding construction services and administration.
- 3.4.5 The Contractor's responsibilities governing cost reporting are detailed here.
- **3.4.6** As between the Owner and the Contractor, responsibilities for construction personnel and supervision are defined.
- 3.4.7 Procedures for review and approval of shop drawings, samples, product data and other submittals are detailed in this Paragraph. The Owner is responsible for the review and approval of submittals.
- 3.4.14 The responsibilities and costsinspection are set forth here.
- 3.6-.7 The Contractor's warranty and obligations to cor. rect Work are detailed.
- As between the Owner and Contractor, provision 3.9 for safety precautions and programs are detailed.
- Procedures for handling Hazardous Materials are detailed. Hazardous Materials provisions acknowledge that the Owner is responsible for conditions at the site. The Contractor may immediately step Work in the affected area and is not required to perform Work related to or in the area of Hazardous Materials
- Responsibilities for unknown site conditions are 3.13
- described in this Paragraph.

 3.14 Responsibilities for permits and taxes are allocated in this Paragraph Paragraph 4.4 is referenced differentiating the Owners responsibilities for building permits and approvals, including developers' fees.

Article 4 OWNER'S RESPONSIBILITIES

- 4.1-.3 and 4.5 The Owner's responsibilities include providing information and services in a timely manner, including financial information, site information, and information necessary to give notice of or to enforce mechanics lien rights.
- 4.4 Building permits, fees, and approvals, that are not the responsibility of the Contractor as described in Paragraph 3.14, are to be secured and paid for by the Owner.

- **4.6-.7** The Owner provides the Contractor with a reasonable number of sets of the Contract Documents and designates its representative with regard to the Project.
- **4.10** Establishes the Owner's responsibilities regarding damage or loss caused by the Owner or Others.

Article 5 SUBCONTRACTS

- 5.2-.3 These provisions govern the award of subcontracts and the possibility of the Owner objecting to a proposed Subcontractor, as well as the binding of Subcontractors and materials suppliers to the Contract Documents as they apply to their work.
- **5.4-.5** There is a note to insert any obligations relative to labor relations affecting the project, and a provision for the contingent assignment of subcontracts if the Agreement is terminated.

Article 6 TIME

- The Date of Commencement is the date of the Agreement unless otherwise indicated in this provision.
- 6.1.2 The Date of Substantial Completion and/or Date of
- Ripel Completion small be established in Amendment 1.

 6.3.4 These ployisions address the handling and notice of delays and delay claims.

Article 7 COMPENSATION AND GUARANTEED MAX-IMÚM PRIÇE

- The basis of compensation for the Work performed 7.7 s described here.
- X.5 Compensation shall be limited to the GMP as established in Amendment No. 1.
- 7.3 The Contractor's Fee is to be inserted here.
- 74 The adjustment in the Contractor's Fee is described here.
- 7.5 The compensation for Preconstruction Services is stated here.

Article 8 COST OF THE WORK

- In addition to the Contractor's Fee, the Owner agrees to pay the Contractor for the items listed and described in this Paragraph.
- Trade discounts, rebates and refunds are to be credited to the Cost of the Work.

Article 9 CHANGES

- The procedures for Change Orders are detailed 9.1 here.
- 9.2 The procedures for Interim Directed Changes are detailed.
- 9.3 Methods to determine the cost of changes in the Work are listed.
- 9.4 The notice requirements for claims for additional cost or time are provided here.

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Article 10 PAYMENTS

- The Contractor prepares a Schedule of Values apportioning the various divisions or phases of the Work, the total of which equals the GMP.
- 10.2 Progress payment applications are described.
- 10.2.4 Retainage, if any, is to be inserted here.
- 10.3 Under specified circumstances, the Owner may adjust or reject the Contractor's payment application.
- Procedures for payment delays not the fault of the Contractor are described in this Paragraph.
- 10.6 Substantial Completion procedures are detailed.
- 10.8 The conditions for final payment are detailed.

Article 11 INDEMNITY, INSURANCE, AND WAIVERS

- The Contractor indemnifies the Owner, Archi-11.1 tect/Engineer, and Others as defined in this Agreement, and the Owner causes other contractors to indemnify the Contractor. Contractual indemnification is governed by state law and the states differ as to the types of indemnification agreements they will enforce. Consultation with legal and insurance counsel with knowledge of the jurisdiction is recommended.
- 11.2 The Contractor and Owner mutually waive claims, for consequential damages arising out of the Agreement
- Insurance provided by the Contractor includes workers' compensation, employer's liability, business automobile liability and commercial general liability inculative Blanks allow the parties to agree to specific policy limits.
- This provision requires the Owner to obtain prop-11.4 erty insurance on the entire project. (C
- This provision addresses the Owner's business 11.5 income and liability Insurance.

Article 12 SUSPENSION, NOTICE TO CURE AND **TERMINATION OF AGREEMENT**

- The consequences of suspension by the Owner for 12.1 convenience are outlined.
- lence are outlined.

 The Owner's rights in a situation where the Contractor has failed to cure a default within the requisite period of time are outlined in this Paragraph.
- The parties rights when the Owner 12.3 exercises its right to terminate the Agreement for cause are detailed.
- The Owner has the right to terminate the Agree-12.4 ment for convenience.
- The contractor has the right to terminate the 12.5 Agreement for specified reasons.

Article 13 DISPUTE RESOLUTION Partnering

AGC advocates dispute avoidance through the use of Partnering. While it is not recommended that Partnering be a contractual requirement, experience commends its use to establish working relationships among the parties through a mutually developed, formal strategy of commit-

ment and communication. See Partnering: Concept for Success Booklet, Order No. 2900 (Associated Gen. Contractors of Am. (AGC of Am.), ed. 1991); Partnering: Changing Attitudes in Construction, Order No. 2902 (AGC of Am., ed. 1995); Partnering: A Concept for Success Video, Order No. 2901 (AGC of Am., ed. 1992); and Job Site Partnering Video, Order No. 2907, (AGC of Am., ed. 1999).

- 13.1 The Contractor is expected to continue performance of the Work and the Owner is expected to continue payment for Work performed during dispute resolution proceedings.
- 13.2 The parties are encouraged to settle their disputes first through direct discussions between authorized representatives. If the representatives are unable to resolve the dispute, the parties' senior executives are to attempt resolution. If these discussions are not successful, the parties must attempt mediation as a condition precedent to any other form of binding dispute (resolution procedure (Paragraph 13.3). Any disputes not resolved by mediation are to be decided by the dispute resolution procedure selected in Exhibit No. 1, a menu of dispute first resolution methods to which a dispute that be submitted. These procedures can be dilized singularly or progressively.
- This Palagraph provides for the consolidation of dispute resolution procedures in all contracts relating to the
- The prevailing party is entitled to recover attorneys' (13.6) tees when using procedures selected in Exhibit No. 1.

Árticle 14 MISCELLANEOUS PROVISIONS

These general provisions govern:

- 14.1 Assignment of this Agreement by either party.
- 14.2 Governing law.
- 14.3 Severability.
- 14.4 No waiver of performance.
- 14.5 Titles.
- 14.6 Construction of the Agreement as a jointly drafted document.
- 14.7 Rights and remedies of the parties.
- Other provisions specific to the Project may be 14.9 added at this Paragraph.

Article 15 CONTRACT DOCUMENTS

The Contract Documents in existence at the time of execution of the Agreement are listed here.

Exhibit No. 1 DISPUTE RESOLUTION MENU

The parties are to select the procedures to resolve their disputes if direct discussions and mediation are unsuccessful.

Amendment No. 1

The parties set the GMP and the Dates of Substantial Completion and Final Completion here.

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AGC DOCUMENT NO. 250 STANDARD FORM OF AGREEMENT AND GENERAL CONDITIONS BETWEEN OWNER AND CONTRACTOR

(Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Services)

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OF THE AGREEMENT

DISPUTE RESOLUTION

- 14. MISCELLANEOUS PROVISIONS
- 15. CONTRACT DOCUMENTS

This Agreement has important legal and insurance consequences. Consultation with an attorney and insurance consultant is encouraged with respect to its completion or modification. A diamond "•" indicates where information is to be inserted to complete this Agreement.

AGC DOCUMENT NO. 250 STANDARD FORM OF AGREEMENT AND GENERAL CONDITIONS BETWEEN OWNER AND CONTRACTOR

(Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Services)

ARTICLE 1

AGREEMENT This Agreement is made this __ by and between the **OWNER** (Name and Address) and the CONTRACTOR (Name and Address) for services in connection with description) (Name, location and Notice to the parties shall be given at the above addresses.

ARTICLE 2

GENERAL PROVISIONS

- **2.1 RELATIONSHIP OF PARTIES** The Owner and the Contractor agree to proceed with the Project on the basis of mutual trust, good faith and fair dealing.
- **2.1.1** The Contractor shall furnish construction administration and management services and use the Contractor's best efforts to perform the Work in an expeditious manner consistent with the Contract Documents. The Owner and Contractor shall endeavor to promote harmony and cooperation among all Project participants.
- **2.1.2** The Contractor represents that it is an independent contractor and that in its performance of the Work it shall act as an independent contractor.
- **2.1.3** Neither Contractor nor any of its agents or employees shall act on behalf of or in the name of Owner except as provided in this Agreement unless authorized in writing by Owner's Representative.
- 2.2 EXTENT OF AGREEMENT This Agreement is solely for the benefit of the parties, represents the entire and integrated agreement between the parties, and supersoles all prior negotiations, representations or agreements, either written or oral. This Agreement and each and every provision thereof is for the exclusive benefit of the owner and Contractor and not for the benefit of any third party, except to the extent expressly provided in the Agreement

2.3 DEFINITIONS

- .1 Agreement means this AGO Document No. 250, Standard Form of Agreement and General Conditions Between Owner and Contractor (Where the Basis of Payment is a Quaranteed Maximum Price with an Option for Preconstruction Services), as modified by the parties, and Exhibits and Attachments made part of this Agreement upon its execution.
- Architect/Engineer means the licensed Architect, Architect/Engineer or Engineer and its consultants, retained by Owner to perform design services for the Project. The Owner's Architect/ Engineer for the Project is
- A Change Order is a written order signed by the Owner and the Contractor after execution of this Agreement, indicating changes in the scope of the Work, the GMP and Date of Substantial Completion and/or Date of Final Completion, including substitu-

tions proposed by the Contractor and accepted by the Owner

- **A** The *Contract Documents* consist of this Agreement, the drawings, specifications, addenda issued prior to execution of this Agreement, approved submittals, information furnished by the Owner under Paragraph 4.3, other documents listed in this Agreement and any modifications issued after its execution period.
- .5 The *Contractor* is the person or entity identified in Article 1 and includes the Contractor's Representative.
- .6 The term Day shall mean calendar day unless otherwise specifically defined.
- or customary compensation of the Contractor's employees at its principal and branch offices except as may be set forth in Supparagraph 8.2.2; general and administrative expenses of the Contractor's principal and branch offices other than the field office; and the Contractor's capital expenses, including interest on the Contractor's capital employed for the Work; and profit.
- the Contractor's obligations under this Agreement are complete and accepted by the Owner and final payment becomes due and payable. This date shall be confirmed by a Certificate of Final Completion signed by the Owner and the Contractor.
- **.9** A *Material Supplier* is a person or entity retained by the Contractor to provide material and equipment for the Work.
- **.10** Others means other contractors, material suppliers, and persons at the Worksite who are not employed by the Contractor, or Subcontractors.
- **.11** Owner is the person or entity identified in Article 1 and includes the Owner's representative
- .12 The Owner's Program is an initial description of the Owner's objectives, including budgetary and time criteria, space requirements and relationships, flexibility and expandability requirements, special equipment and systems, site requirements, and any requirements for phased occupancy.
- .13 The *Project*, as identified in Article 1, is the building, facility and/or other improvements for which the Contractor is to perform Work under this Agree-

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ment. It may also include construction by the Owner or Others.

- .14 The Schedule of the Work is the document prepared by the Contractor that specifies the dates on which the Contractor plans to begin and complete various parts of the Work, including dates on which information and approvals are required from the Owner.
- **.15** A *Subcontractor* is a person or entity retained by the Contractor as an independent contractor to provide the labor, materials, equipment and/or services necessary to complete a specific portion of the Work. The term Subcontractor does not include the Architect/Engineer or Others.
- designated portion, occurs on the date when the Work is sufficiently complete in accordance with the Contract Documents so that the Owner may occupy or utilize the Work, or a designated portion, for the use for which it is intended. The issuance of a certificate of occupancy is not a prerequisite for Substantial Completion if the certificate of occupancy cannot be obtained due to factors beyond the contractor's control. This date shall be confirmed by the Owner and Contractor.
- .17 A Subsubcontractor is a person or entity who has an agreement with a Subcontractor to perform any portion of the Work.
- necessary or incidental to fulfill the Contractor's obligations for the Project in contractor with this Agreement and the other Contract Documents. The Work may refer to the whole Project or only a part of the Project if work is also being performed by the Owner or Others.
 - Ehanged Work means work that is different from the original scope of Work; or work that changes the GMP or Date of Substantial Completion and/or Date of Final Completion.
 - **2** Defective Work is any portion of the Work that is not in conformance with the Contract Documents, as more fully described in Paragraphs 3.5 and 3.6.
- .19 Worksite means the location of the Project as identified in Article 1 where the Work is to be performed.

ARTICLE 3

CONTRACTOR'S RESPONSIBILITIES

3.1 GENERAL RESPONSIBILITIES

- **3.1.1** The Contractor shall provide all labor, materials, equipment and services necessary to complete the Work, all of which shall be provided in full accord with and reasonably inferable from the Contract Documents as being necessary to produce the indicated results.
- **3.1.2** The Contractor shall be responsible for the supervision and coordination of the Work, including the construction means, methods, techniques, sequences and procedures utilized, unless the Contract Documents give other specific instructions. In such case the Contractor shall not be liable to the Owner for damages resulting from compliance with such instructions unless the Contractor recognized and failed to timely report to the Owner any error, inconsistency, omission or unsafe practice that it discovered in the specified construction means, methods, techniques, sequences or procedures.
- **3.1.3** The Contractor shall perform Work only within locations allowed by the Contract Documents, applicable permits and applicable law.
- WORKSITE VISIT The Contractor acknowledges that it has visited, or has had the opportunity to visit, the Worksite to visually inspect the general and local conditions which could affect the Work.

3.1.5 CONTRACTOR'S REPRESENTATIVE The Contractor's authorized representative is _____

The Contractor's Representative shall possess full authority to receive instructions from the Owner and to act on those instructions. The Contractor shall notify the Owner in writing of a change in the designation of the Contractor's Representative.

3.1.6 PROFESSIONAL SERVICES The Owner, through its Architect/Engineer, shall provide professional services required for the completion of the Work, except the following:

. The Contractor shall not be required to provide professional services which constitute the practice of architecture or engineering unless the Contractor needs to provide such services in order to carry out its responsibilities for construction means, methods, techniques, sequences and procedures, or unless such services are specifically called for by the Contract Documents. If professional services are required of the Contractor, the Owner shall indicate all performance and design criteria to be sat-

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isfied. The Contractor shall not be responsible for the adequacy of such performance and design criteria. The Contractor shall obtain professional services and any design certifications required from licensed design professionals. All drawings, specifications, calculations, certifications and submittals prepared by such design professionals shall bear the signature and seal of such design professionals and the Owner and the Architect/Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of such design services. The Contractor shall not be required to provide such services in violation of existing laws, rules and regulations in the jurisdiction where the Project is located.

3.2 PRECONSTRUCTION SERVICES

The Preconstruction Services under this Paragraph 3.2 (Check one only)

are / ____ are not included in the Contractor's Work.

3.2.1 PRELIMINARY EVALUATION The Contractor shall provide a preliminary evaluation of the Owner's Program and report such findings to the Owner and the Architect/Engineer.

and attend regular meetings with the Owner and Architect/Engineer. The Contractor shall consult with the Owner and Architect/Engineer regarding site use and improvements and the selection of materials, building systems and equipment. The Contractor shall provide recommendations on construction feasibility; actions designed to minimize adverse effects of labor or material shortages, time equirements for procurement, installation and construction completion; and factors related to construction cost including estimates of alternative designs or materials

3.2.3 SCHEDULE OF THE WORK When Project requirements have been sufficiently identified, the Contractor shall prepare a preliminarly Schedule of the Work for the Architect/Engineer's review and the Owner's approval. The Contractor shall coordinate and integrate the Schedule of the Work with the services and activities of the Owner, Contractor, Architect/Engineer, and the requirements of governmental entities. As design proceeds, the Contractor shall update the Schedule of the Work to indicate proposed activity sequences, durations, and/or milestone dates for such activities as receipt and approval of pertinent information, issuance of the drawings and specifications, the preparation and processing of shop drawings and samples, delivery of materials or equipment requiring long-lead time procurement, Owner's occupancy requirements and estimated date of Substantial Completion of the Project. If Schedule of the Work updates indicate that milestone dates contained in prior Schedules of the Work will not be met, the Contractor

shall notify and make recommendations to the Owner. If the Project is to be completed in phases, the Contractor shall make recommendations to the Owner and Architect/Engineer regarding the phased issuance of the drawings and specifications.

3.2.4 ESTIMATES

- .1 When the Owner has sufficiently identified the Owner's Program and other Project requirements and the Architect/Engineer has prepared other basic design criteria, the Contractor shall prepare, for the review of the Architect/Engineer and approval of the Owner, an initial estimate for the Project, utilizing area, volume or similar conceptual estimating techniques.
- When schematic of reliminary design documents have been completed by the Architect/Engineer and approved by the Owner, the Contractor shall prepare for the review of the Architect/Engineer and approval of the Owner, a more detailed budget with supporting data. During the preparation of the design development documents or documents of comparable detail, the Contractor shall update and refine this estimate at appropriate intervals agreed upon by the Owner and Contractor.
- When design development documents or documents of comparable detail have been completed by the Architect/Engineer and approved by the Owner, the Contractor shall prepare a further detailed estimate with supporting data for review by the Architect/Engineer and approval by the Owner. During the preparation of the drawings and specifications, the Contractor shall update and refine this estimate at appropriate intervals agreed upon by the Owner and Contractor.
- .4 If any estimate submitted to the Owner exceeds previously approved estimates, the Contractor shall notify and make recommendations to the Owner.

3.2.5 CONSTRUCTION DOCUMENT REVIEW The

Contractor shall review the drawings and specifications in an effort to identify potential constructibility problems that could impact the Contractors' ability to perform the Work in an expeditious and economical manner. The Contractor shall issue a report to the Architect/Engineer and Owner for their review and action as appropriate. In addition, the Contractor shall promptly report to the Owner and the Architect/Engineer any errors or omissions which it discovers in the drawings and specifications.

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- **3.2.6 TEMPORARY FACILITIES** The Contractor shall make recommendations regarding temporary construction facilities, equipment, materials and services for common use by the Contractor, its Subcontractors, Subsubcontractors and Material Suppliers.
- **3.2.7 LONG-LEAD ITEMS** The Contractor shall recommend to the Owner and Architect/Engineer a schedule for procurement of long-lead time items which will constitute part of the Work as required to meet the Schedule of the Work. The Contractor shall help expedite the delivery of long-lead time items.
- **3.2.8 SOLICITATION OF SUBCONTRACTORS AND SUPPLIERS** The Contractor shall seek to develop Subcontractor interest in the Project and shall furnish to the Owner and Architect/Engineer a list of possible subcontractors from whom proposals may be requested for each principal portion of the Work. The Owner shall promptly reply in writing to the Contractor if the Owner or Architect/Engineer know of any objection to a subcontractor. The Owner may designate specific persons or entities from whom the Contractor shall solicit bids.
- **3.2.9 EQUAL EMPLOYMENT OPPORTUNITY AND AFFIRMATIVE ACTION** The Contractor shall consult with the Owner regarding equal employment opportunity and affirmative action programs.
- **3.2.10 CONSULTANTS** The Contractor shall assist the Owner in selecting, retaining and coordinating the professional services of a surveyor, testing laboratories and specific consultants as needed.
- **3.2.11 PERMITS** The Contractor shall assist the owner in obtaining building permits and special permits to permanent improvements, except for permits required to be obtained directly by the Contractor.

3.3 GUARANTEED MAXIMUM PRICE (GMP)

3.3.1 If Preconstruction services are included in the Contractor's Work then at such time as the Owner and Contractor agree the clawings and specifications are sufficiently complete, the Contractor shall prepare and submit to the Owner in writing a GMP. If Preconstruction Services are not included in the Work, the GMP proposal submitted to and approved by the Owner prior to execution of this Agreement shall be set forth in Amendment No. 1. The GMP proposal shall include the sum of the estimated cost of the Work, the Contractor's Fee, the clarifications and assumptions upon which it is based, allowances and reasonable contingencies, but shall not include compensation for Preconstruction Services.

3.3.2 BASIS OF GUARANTEED MAXIMUM PRICE

The Contractor shall include with the GMP proposal a written statement of its basis, which shall include:

- **.1** a list of the drawings and specifications, including all addenda, which were used in preparation of the GMP Proposal;
- a list of allowances and a statement of their basis;
- a list of the assumptions and clarifications made by the Contractor in the preparation of the GMP Proposal to supplement the information contained in the drawings and specification;
- the Date of Substantial Completion and/or the Date of Final Completion upon which the proposed GMP is based, and the Schedule of Work upon which the Date of Substantial Completion and/or the Date of Final Completion is based;
- .5 a schedule of applicable alternate prices;
- **6** a)schedule of applicable unit prices;
- a statement of any work to be self-perfermed by the Contractor.
- Architect/Engineer to review the GMP. In the event that the Owner or Architect/Engineer discover any inconsistencies, inaccuracies or omissions in the information presented, they shall promptly notify the Contractor, who shall make appropriate adjustments to the GMP. The Owner shall then give prompt written approval of the GMP.
- **3.3.4** The Owner shall cause the Architect/Engineer to revise the drawings and specifications to the extent necessary to reflect the clarifications, assumptions, and allowances on which the GMP is based. Revised drawings and specifications shall be furnished to the Contractor in accordance with the current Schedule of the Work, unless otherwise agreed by the Owner, Contractor and Architect/Engineer. The Contractor shall promptly notify the Owner and Architect/Engineer if the revised drawings and specifications are inconsistent with the GMP's clarifications, assumptions, and allowances.
- **3.3.5** If the Contract Documents are not complete at the time the GMP proposal is submitted to the Owner, the Contractor shall provide in the GMP for further development of the Contract Documents. Such further development does not include changes in scope, systems, kinds and quality of materials, finishes or equipment, all of which, if required, shall be incorporated by Change Document.

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- **3.3.6** If this Agreement is executed prior to establishment of the Guaranteed Maximum Price and its acceptance by the Owner, then the GMP and its basis shall be set forth in Amendment No. 1.
- **3.3.7** Allowances shall include the costs of materials, supplies and equipment delivered to the Worksite less applicable trade discounts and including requisite taxes, unloading and handling at the Worksite, and labor and installation, unless specifically stated otherwise. The Contractor's overhead and profit for the allowances shall be included in the GMP, but not in the allowances. The GMP shall be adjusted by Change Order to reflect the actual costs when they are greater than or less than the allowances.

3.4 CONSTRUCTION SERVICES AND ADMINISTRA-TION

- **3.4.1** In order to facilitate its responsibilities for completion of the Work in accordance with and as reasonably inferable from the Contract Documents, prior to commencing the Work the Contractor shall examine and compare the drawings and specifications with information furnished by the Owner pursuant to Paragraph 4.3, relevant field measurements made by the Contractor and any visible conditions at the Worksite affecting the Work.
- 3.4.2 If, in the course of the performance of the obligations in Subparagraph 3.4.1, the Contractor discovers any errors, omissions or inconsistencies in the Contract Documents, the Contractor shall promptly report them to the Owner. It is recognized, however, that the Contractor is not acting in the capacity of a licensed design professional, and that the Contractor's examination is to facilitate construction and does not create an affirmative responsibility to detect errors, omissions or inconsistencies or to accertain compliance with applicable laws, building codes or regulations. Following receipt of written notice from the Contractor of defects, the Owner shall promptly later to the defects.
- **3.4.3** The Contractor shall have no liability for errors, omissions of inconsistencies discovered under Subparagraphs 3.4.1 and 3.4.2, unless the Contractor knowingly fails to report a recognized problem to the Owner.
- **3.4.4** The Contractor may be entitled to additional costs and/or time because of clarifications or instructions growing out of the Contractor's reports described in the three preceding subparagraphs.
- **3.4.5 COST REPORTING** The Contractor shall keep such full and detailed accounts as are necessary for proper financial management under this Agreement. Contractor shall maintain a complete set of all books and records pre-

pared or used by the Contractor with respect to the Project. The Contractor's records supporting its performance and billings under this Agreement shall be current, complete and accurate and maintained according to Generally Accepted Accounting Principles. The Owner shall be afforded access to all the Contractor's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda and similar data relating to this Agreement. The Contractor shall preserve all such records for a period of three years after the final payment or longer where required by law.

3.4.5.1 The Contractor agrees to use reasonable skill and judgment in the preparation of cost estimates and Schedule of the Work, but does not warrant or guarantee them.

3.4.6 CONSTRUCTION PERSONNEL AND SUPERVI-SION

3.4.6.1 The Contractor shall provide competent supervision for the performance of the Work. Before commencing the Work, Contractor shall notify Owner in writing of the name and qualifications of the proposed superintendent(s) and project trainager, so when may review the individual's qualifications. If, for casorable cause, the Owner refuses to approve the individual, or withdraws its approval after once giving it, Contractor shall name a different superintendent for Owner's review. Any disapproved superintendent shall not perform in that capacity thereafter at the Worksite.

3.4.6.2 The Contractor shall be responsible to the Owner for acts or omissions of parties or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors.

3.4.6.3 The Contractor shall permit only fit and skilled persons to perform the Work. The Contractor shall enforce safety procedures, strict discipline and good order among persons performing the Work. If the Owner determines that a particular person does not follow safety procedures, or is unfit or unskilled for the assigned work, the Contractor shall immediately reassign the person on receipt of the Owner's written notice to do so.

3.4.7 SUBMITTALS

3.4.7.1 The Contractor shall submit to the Owner and, if directed, to its Architect/Engineer for review and the Owner's approval all shop drawings, samples, product data and similar submittals required by the Contract Documents. The Contractor shall be responsible to the Owner for the accuracy and conformity of its submittals to the Contract Documents. The Contractor shall prepare and deliver its submittals to the Owner in such time and sequence so as not to delay the performance of the Work or the work of the Owner and Others. When the Contractor delivers its submittals to the Owner, the Contractor shall identify in writing

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for each submittal all changes, deviations or substitutions from the requirements of the Contract Documents. The review and approval of any Contractor submittal shall not be deemed to authorize changes, deviations or substitutions from the requirements of the Contract Documents unless express written approval is obtained from the Owner specifically authorizing such deviation, substitution or change. Further, the Owner shall not make any change, deviation or substitution through the submittal process without specifically identifying and authorizing such deviation to the Contractor. In the event that the Contract Documents do not contain submittal requirements pertaining to the Work, the Contractor agrees upon request to submit in a timely fashion to the Owner for review and approval any shop drawings, samples, product data, manufacturers' literature or similar submittals as may reasonably be required by the Owner.

- **3.4.7.2** The Owner shall be responsible for review and approval of submittals with reasonable promptness to avoid causing delay.
- **3.4.7.3** The Contractor shall perform all Work strictly in accordance with approved submittals. Approval does not relieve the Contractor from responsibility for Defective Work resulting from errors or omissions of any kind on the approved Shop Drawings.
- **3.4.7.4** Record copies of the following, incolorating field changes and selections made during construction shall be maintained at the Worksite and available to the Owner upon request: drawings, specifications, addenda and other modifications, and required submittals including product data, samples and shop drawings.
- **3.4.7.5** No substitutions shall be made in the Work unless permitted in the Contract Documents and then only after the Contractor obtains all approvals required order the Contract Documents for substitutions.

3.4.8 The Contractor shall prepare and submit to the Owner Check one only)

Vina marked up as-built drawings or updated electronic data

such documentation as defined by the parties by attachment to this Agreement,

in general documenting how the various elements of the Work were actually constructed or installed.

3.4.9 COOPERATION WITH WORK OF OWNER AND OTHERS

- **3.4.9.1** The Owner may perform work at the Worksite directly or by Others. Any agreements with Others to perform construction or operations related to the Project shall include provisions pertaining to insurance, indemnification, waiver of subrogation, coordination, interference, clean up and safety which are substantively the same as the corresponding provisions of this Agreement.
- **3.4.9.2** In the event that the Owner elects to perform work at the Worksite directly or by Others, the Contractor and Owner shall coordinate the activities of all forces at the Worksite and agree upon fair and reasonable schedules and operational procedures for Worksite activities. The Owner shall require each separate contractor to cooperate with the Contractor and assist with the coordination of activities and the review of construction schedules and operations. The GMP and/or the Date of Substantial Completion and/or the Date of Final Completion shall be equitably adjusted, as mutually agreed by the parties, for changes made necessary by the coordination of construction activities, and the Schedule of the Work shall be revised accordingly. The Contractor, Owner and Others shall adhere to the revised Schedule of the Work until it may subsequently be revised.
- 3.4.93 with regard to the work of the Owner and Others, the Contractor shall (a) proceed with the Work in a manner which does not hinder, delay or interfere with the work of the Owner or Others or cause the work of the Owner or Others to become defective, (b) afford the Owner or Others reasonable access for introduction and storage of their materials and equipment and performance of their activities, and (c) coordinate the Contractor's construction and operations with theirs as required by this Subparagraph 3.4.9.
- **3.4.9.4** Before proceeding with any portion of the Work affected by the construction or operations of the Owner or Others, the Contractor shall give the Owner prompt, written notification of any defects the Contractor discovers in their work which will prevent the proper execution of the Work. The Contractor's obligations in this Subparagraph 3.4.9 do not create a responsibility for the work of Others, but are for the purpose of facilitating the Work. If the Contractor does not notify the Owner of patent defects interfering with the performance of the Work, the Contractor acknowledges that the work of the Owner or Others is not defective and is acceptable for the proper execution of the Work. Following receipt of written notice from the Contractor of defects, the Owner shall promptly inform the Contractor what action, if any, the Contractor shall take with regard to the defects.

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3.4.10 CUTTING, FITTING AND PATCHING

3.4.10.1 The Contractor shall perform cutting, fitting and patching necessary to coordinate the various parts of the Work and to prepare its Work for the work of the Owner or Others.

3.4.10.2 Cutting, patching or altering the work of the Owner or Others shall be done with the prior written approval of the Owner. Such approval shall not be unreasonably withheld.

3.4.11 CLEANING UP

3.4.11.1 The Contractor shall regularly remove debris and waste materials at the Worksite resulting from the Work. Prior to discontinuing Work in an area, the Contractor shall clean the area and remove all rubbish and its construction equipment, tools, machinery, waste and surplus materials. The Contractor shall minimize and confine dust and debris resulting from construction activities. At the completion of the Work, the Contractor shall remove from the Worksite all construction equipment, tools, surplus materials, waste materials and debris.

3.4.11.2 If the Contractor fails to commence compliance with cleanup duties within forty-eight (48) hours after written voitification from the Owner of non-compliance, the Owner may implement appropriate cleanup measures without further notice and the cost shall be deducted from any amounts due or to become due the Contractor.

3.4.12 ACCESS TO WORK The Contractor shall facilitate the access of the Owner, its Architect/Engineer and Others to Work in progress.

3.4.13 MATERIALS FURNISHED BY THE OWNER OR OTHERS

3.4.13.1 In the event the Work includes installation of materials or equipment furnished by the Owner or Others, it shall be the responsibility of the Contractor to examine the items so provided and the euron handle, store and install the items, unless of the responsibility and care as to provide a satisfactory and proper installation. Loss or damage due to acts or omissions of the Contractor shall be the responsibility of the Contractor and may be deducted from any amounts due or to become due the Contractor. Any defects discovered in such materials or equipment shall be reported at once to the Owner. Following receipt of written notice from the Contractor of defects, the Owner shall promptly inform the Contractor what action, if any, the Contractor shall take with regard to the defects.

3.4.14 TESTS AND INSPECTIONS

3.4.14.1 The Contractor shall schedule all required tests, approvals and inspections of the Work or portions thereof at appropriate times so as not to delay the progress of the Work or other work related to the Project. The Contractor shall give proper notice to all required parties of such tests, approvals and inspections. If feasible, the Owner and Others may timely observe the tests at the normal place of testing. The Owner shall bear all expenses associated with tests, inspections and approvals required by the Contract Documents except as provided in Clause 3.4.14.3, and which, unless otherwise agreed to, shall be conducted by an independent testing laboratory or entity retained by the Owner. Unless otherwise required by the Contract Documents, required certificates of testing, approval or inspection shall be secured by the Contractor and promptly delivered to the Owner.

3.4.14.2 If the Owner or appropriate authorities determine that tests, inspections or approvals in addition to those required by the Contract Documents will be necessary, the Contractor shall arrange for the procedures and give timely notice to the Owner and Others who may observe the procedures. Costs of the additional tests, inspections or approvals are at the Owner's expense except as provided in Clause 3.4.14.3.

The procedures described in Clauses 3.4.14.1 and 14.2 indicate that portions of the Work fail to comply with the Contract Documents due to the negligence of the Contractor, the Contractor shall be responsible for costs of correction and retesting.

3.5 WORKMANSHIP

3.5.1 The Work shall be executed in accordance with the Contract Documents in a workmanlike manner. All materials used in the Work shall be furnished in sufficient quantities to facilitate the proper and expeditious execution of the Work and shall be new except such materials as may be expressly provided in the Contract Documents to be otherwise.

3.6 WARRANTY

3.6.1 The Contractor warrants that all materials and equipment furnished under the Construction Phase of this Agreement will be new unless otherwise specified, of good quality, in conformance with the Contract Documents, and free from defective workmanship and materials. At the Owner's request, the Contractor shall furnish satisfactory evidence of the quality and type of materials and equipment furnished. The Contractor further warrants that the Work shall be free from material defects not intrinsic in the design or materials required in the Contract Documents. The Contractor's warranty does not include remedies for defects or damages caused by normal wear and tear during normal

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usage, use for a purpose for which the Project was not intended, improper or insufficient maintenance, modifications performed by the Owner or Others, or abuse. The Contractor's warranty pursuant to this Paragraph 3.6 shall commence on the Date of Substantial Completion.

- **3.6.2** With respect to any portion of Work first performed after Substantial Completion, the Contractor's warranty obligation shall be extended by the period of time between Substantial Completion and the actual performance of the later Work.
- **3.6.3** The Contractor shall obtain from its Subcontractors and Material Suppliers any special or extended warranties required by the Contract Documents. All such warranties shall be listed in an attached exhibit to this Agreement. Contractor's liability for such warranties shall be limited to the one-year correction period referred to in Paragraph 3.7. After that period Contractor shall assign them to the Owner and provide reasonable assistance to the Owner in enforcing the obligations of Subcontractors or Material Suppliers.

3.7 CORRECTION OF WORK WITHIN ONE YEAR

- 3.7.1 If prior to Substantial Completion and within one year after the date of Substantial Completion of the Work any Defective Work is found, the Owner shall promptly the Contractor in writing. Unless the Owner provides written acceptance of the condition, the Contractor shall promptly correct the Defective Work. If within the Gne year correction period the Owner discovers and does not promptly notify the Contractor or give the Contractor an opportunity to test and/or correct Defective Work as reasonably requested by the Contractor, the Owner waives the Contractor's obligation to correct that Defective Work as well as the owner's right to claim a breach of the warranty with respect to that Defective Work
- **3.7.2** With respect to any portion of Work first performed after Substantial Completion, the one year correction period shall be extended by the period of time between Substantial Completion and the actual performance of the later Work. Correction periods shall not be extended by corrective work performed by the Contractor.
- **3.7.3** If the Contractor fails to correct Defective Work within a reasonable time after receipt of written notice from the Owner prior to final payment, the Owner may correct it in accordance with the Owner's right to carry out the Work in Paragraph 12.2. In such case, an appropriate Change Order shall be issued deducting the cost of correcting such deficiencies from payments then or thereafter due the Contractor. If payments then or there after due Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

- **3.7.4** If after the one-year correction period but before the applicable limitation period the Owner discovers any Defective Work, the Owner shall, unless the Defective Work requires emergency correction, promptly notify the Contractor. If the Contractor elects to correct the Work it shall provide written notice of such intent within fourteen (14) days of its receipt of notice from the Owner. The Contractor shall complete the correction of Work within a mutually agreed time frame. If the Contractor does not elect to correct the Work, the Owner may have the Work corrected by itself or Others and charge the Contractor for the reasonable cost of the correction. Owner shall provide Contractor with an accounting of correction costs it incurs.
- **3.7.5** If the Contractor's correction or removal of Defective Work causes damage to or destroys other completed or partially completed construction, the Contractor shall be responsible for the cost of correcting the destroyed or damaged construction.
- 3.7.6 The one-year period for correction of Defective Work does not constitute a finitation period with respect to the enforcement of the contractor's other obligations under the Contract Documents.
- 3.7.7 Prior to final payment, at the Owner's option and with the Contractor's agreement, the Owner may elect to accept Defective Work rather than require its removal and correction. In such cases the GMP shall be equitably adjusted.

3.8 CORRECTION OF COVERED WORK

- **3.8.1** On request of the Owner, Work that has been covered without a requirement that it be inspected prior to being covered may be uncovered for the Owner's inspection. The Owner shall pay for the costs of uncovering and replacement if the Work proves to be in conformance with the Contract Documents, or if the defective condition was caused by the Owner or Others. If the uncovered Work proves to be defective, the Contractor shall pay the costs of uncovering and replacement.
- **3.8.2** If contrary to specific requirements in the Contract Documents or contrary to a specific request from the Owner, a portion of the Work is covered, the Owner, by written request, may require the Contractor to uncover the Work for the Owner's observation. In this circumstance the Work shall be replaced at the Contractor's expense and with no adjustment to the Dates of Substantial and/or Final Completion.
- **3.8.3** The Contractor is required to correct in a timely fashion any Work rejected by the Owner which fails to comply with the Contract Documents prior to the commencement of the warranty period(s) or during the correction period(s) established under Paragraph 3.7. The

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Contractor shall correct at its own cost and time and bear the expense of additional services required for correction of any Defective Work for which it is responsible.

3.9 SAFETY OF PERSONS AND PROPERTY

- **3.9.1 SAFETY PRECAUTIONS AND PROGRAMS** The Contractor shall have overall responsibility for safety precautions and programs in the performance of the Work. While this Paragraph 3.9 establishes the responsibility for safety between the Owner and Contractor, it does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with the provisions of applicable laws and regulations.
- **3.9.2** The Contractor shall seek to avoid injury, loss or damage to persons or property by taking reasonable steps to protect:
 - .1 its employees and other persons at the Worksite;
 - **2** materials and equipment stored at on-site or off-site locations for use in the Work; and
 - .3 property located at the Worksite and adjacent to Work areas, whether or not the property is part of the Work.

3.9.3 CONTRACTOR'S SAFETY REPRESENTATIVE

The Contractor's Worksite Safety Representative is

, who shall acras the Contractor's authorized safety representative with a duty to prevent accidents in accordance with Subparagraph 3.9.2. The Contractor shall designate an individual at the Worksite in the employ of the Contractor who shall act as the Contractor's authorized safety representative with a duty to prevent accidents in accordance with Subparagraph 3.9.2. If no individual is identified in this Subparagraph 3.9, the authorized safety representative shall be the Contractor's Representative. The Contractor shall report immediately in writing all accidents and injuries occurring at the Worksite. When the Contractor is required to file an accident report with a public authority the Contractor shall furnish a copy of the report to the Owner.

- **3.9.4** The Contractor shall provide the Owner with copies of all notices required of the Contractor by law or regulation. The Contractor's safety program shall comply with the requirements of governmental and quasi-governmental authorities having jurisdiction.
- **3.9.5** Damage or loss not insured under property insurance which may arise from the Work, to the extent of the

negligence attributed to acts or omissions of the Contractor, or anyone for whose acts the Contractor may be liable, shall be promptly remedied by the Contractor. With regard to damage or loss attributable to the acts or omissions of the Owner or Others and not to the Contractor, the Owner may either (a) promptly remedy the damage or loss; or (b) accept the damage or loss.

- **3.9.6** If the Owner deems any part of the Work or Worksite unsafe, the Owner, without assuming responsibility for the Contractor's safety program, may require the Contractor to stop performance of the Work or take corrective measures satisfactory to the Owner, or both. If the Contractor does not adopt corrective measures, the Owner may perform them and deduct their cost from the GMP. The Contractor agrees to make no claim for damages, or an increase in the GMP, or for a change in the Dates of Substantial and/or Final Completion based on the Contractor's compliance with the Owner's reasonable request.
- 3.10 EMERGENCIES in an emergency, the Contractor shall act in a reasonable manner to prevent personal injury or property damage. If appropriate, an equitable adjustment in SMP or Date of Eubstantial Completion and/or Date of Final Completion shall be determined in a Change Order.

3.11 HAZARDOUS MATERIALS

- A Hazardous Material is any substance or material centified now or in the future as hazardous under any federal, state or local law or regulation, or any other substance or material that may be considered hazardous or otherwise subject to statutory or regulatory requirement governing handling, disposal and/or clean-up. The Contractor shall not be obligated to commence or continue work until any Hazardous Material discovered at the Worksite has been removed, rendered or determined to be harmless by the Owner as certified by an independent testing laboratory and approved by the appropriate government agency.
- **3.11.2** If after the commencement of the Work, Hazardous Material is discovered at the Worksite, the Contractor shall be entitled to immediately stop Work in the affected area. The Contractor shall report the condition to the Owner, the Architect/Engineer, and, if required, the government agency with jurisdiction.
- **3.11.3** The Contractor shall not be required to perform any Work relating to or in the area of Hazardous Material without written mutual agreement.
- **3.11.4** The Owner shall be responsible for retaining an independent testing laboratory to determine the nature of the material encountered and whether the material requires corrective measures and/or remedial action. Such measures shall be the sole responsibility of the Owner, and shall be

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performed in a manner minimizing any adverse effects upon the Work. The Contractor shall resume Work in the area affected by any Hazardous Material only upon written agreement between the parties after the Hazardous Material has been removed or rendered harmless and only after approval, if necessary, of the governmental agency with jurisdiction.

- **3.11.5** If the Contractor incurs additional costs and/or is delayed due to the presence or remediation of Hazardous Material, the Contractor shall be entitled to an equitable adjustment in the GMP and/or the Dates of Substantial and/or Final Completion.
- **3.11.6** To the extent not caused by the negligent acts or omissions of the Contractor, its Subcontractors and Subsubcontractors, and the agents, officers, directors and employees of each of them, the Owner shall defend, indemnify and hold harmless the Contractor, its Subcontractors and Subsubcontractors, and the agents, officers, directors and employees of each of them, from and against any and all direct claims, damages, losses, costs and expenses, including but not limited to attorney's fees, costs and expenses incurred in connection with any dispute resolution procedure, arising out of or relating to the performance of the Work in any area affected by Hazardous Material To the fullest extent permitted by law, such indemnification shall apply regardless of the fault, negligence, breact of warranty or contract, or strict liability of the Owner

3.12 MATERIALS BROUGHT TO THE WORKSITE

- **3.12.1** Material Safety Data (MSD) sheets as required by law and pertaining to materials or substances used or consumed in the performance of the Work Whether obtained by the Contractor, Subcontractors, the Contractor of Others, shall be maintained at the Works to by the Contractor and made available to the Owner, Subcontractors and Others.
- **3.12.2** The Contractor shall be responsible for the proper delivery, handling, application, storage, removal and disposal of all materials and substances brought to the Worksite by the Contractor in accordance with the Contract Documents and used or consumed in the performance of the Work.
- **3.12.3** To the extent not caused by the negligent acts or omissions of the Owner, its agents, officers, directors and employees, the Contractor shall defend, indemnify and hold harmless the Owner, its agents, officers, directors and employees, from and against any and all direct claims, damages, losses, costs and expenses, including but not limited to attorney's fees, costs and expenses incurred in connection with any dispute resolution process, arising out of or relating to the delivery, handling, application, storage, removal and disposal of all materials and substances brought to the Worksite by the Contractor in accordance with

the Contract Documents. To the fullest extent permitted by law, such indemnification shall apply regardless of the fault, negligence, breach of warranty or contract, or strict liability of the Contractor.

- **3.12.4** The terms of this Paragraph 3.12 shall survive the completion of the Work and/or any termination of this Agreement.
- **CONCEALED OR UNKNOWN WORKSITE CON-**3.13 **DITIONS** If the conditions at the Worksite are (a) subsurface or other physical conditions which are materially different from those indicated in the Contract Documents, or (b) unusual or unknown physical conditions which are materially different from conditions ordinarily encountered and generally recognized as inherent in Work provided for in the Contract Documents, the Contractor shall stop Work and give immediate written notice of the condition to the Owner and the Architect/Engineer. Any change in the GMP, estimated Cost of the Work, Contractor's Fee, Date of Substantial Completion and/or Date of Final Completion and, if appropriate, the Compensation for Preconstruction Services as a result of the unknown condition shall be determined as provided in Article 9: The Contractor shall provide the Owner with written notice of any claim as a result of unknown conditions within the time period set forth in Paragraph 9.4.

3.14 PERMITS AND TAXES

- **14.1 Contractor shall give public authorities all notices required by law and, except for permits and fees which are the responsibility of the Owner pursuant to Paragraph 4.4, shall obtain and pay for all necessary permits, licenses and renewals pertaining to the Work. Contractor shall provide to Owner copies of all notices, permits, licenses and renewals required under this Agreement.
- **3.14.2** Contractor shall pay all applicable taxes legally enacted when bids are received or negotiations concluded for the Work provided by the Contractor.
- **3.14.3** The GMP shall be adjusted for additional costs resulting from laws, ordinances, rules and regulations enacted after the date of this Agreement, including increased taxes.
- **3.14.4** If, in accordance with the Owner's direction, the Contractor claims an exemption for taxes, the Owner shall defend, indemnify and hold the Contractor harmless from any liability, penalty, interest, fine, tax assessment, attorneys fees or other expense or cost incurred by the Contractor as a result of any such action.
- **3.15 CONFIDENTIALITY** The Contractor shall treat as confidential and not disclose to third persons, except Subcontractors, Subsubcontractors and as is necessary for the performance of the Work, or use for its own benefit, any of

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the Owner's confidential information, know-how, discoveries, production methods and the like that may be disclosed to the Contractor or which the Contractor may acquire in connection with the Work. The Owner shall treat as confidential information all of the Contractor's estimating systems and historical and parameter cost data that may be disclosed to the Owner in connection with the performance of this Agreement.

ARTICLE 4

OWNER'S RESPONSIBILITIES

- **4.1 INFORMATION AND SERVICES** Any information or services to be provided by the Owner shall be provided in a timely manner so as not to delay the Work.
- **4.2 FINANCIAL INFORMATION** Prior to commencement of the Work and thereafter at the written request of the Contractor, the Owner shall provide the Contractor with evidence of Project financing. Evidence of such financing shall be a condition precedent to the Contractor's commencing or continuing the Work. The Contractor shall be notified prior to any material change in Project financing.
- that the Contractor knows of any inaccuracy, the Contractor is entitled to rely on Worksite information furnished by the Owner pursuant to this Paragraph 4.3 To the extent the Owner has obtained, or is required elsewhere in the Contract Documents to obtain, the following Worksite information, the Owner shall provide at the Owner's expense and with reasonable promptness:
 - .1 information describing the physical characteristics of the Worksite, including surveys, Worksite evaluations, legal descriptions data or drawings depicting existing conditions, subsurface conditions and environmental studies, reports and investigations:
 - tests inspections and other reports dealing with environmental matters, Hazardous Material and other existing conditions, including structural, mechanical and chemical tests, required by the Contract Documents or by law; and
 - .3 any other information or services requested in writing by the Contractor which are relevant to the Contractor's performance of the Work and under the Owner's control.

The information required by this Paragraph 4.3 shall be provided in reasonable detail. Legal descriptions shall include easements, title restrictions, boundaries, and zoning restrictions. Worksite descriptions shall include existing buildings

and other construction and all other pertinent site conditions. Adjacent property descriptions shall include structures, streets, sidewalks, alleys, and other features relevant to the Work. Utility details shall include available services, lines at the Worksite and adjacent thereto and connection points. The information shall include public and private information, subsurface information, grades, contours, and elevations, drainage data, exact locations and dimensions, and benchmarks that can be used by the Contractor in laying out the Work.

4.4 BUILDING PERMIT, FEES AND APPROVALS

Except for those permits and fees related to the Work which are the responsibility of the Contractor pursuant to Paragraph 3.14, the Owner shall secure and pay for all other permits, approvals, easements, assessments and fees required for the development, construction, use or occupancy of permanent structures or for permanent changes in existing facilities, including the building permits.

MECHANICS AND CONSTRUCTION LIEN INFORMATION Within seven (2) days after receiving the Contractors with the information necessary to give notice of or enforce mechanics lien rights and, where applicable, stop notices. This information shall include the Owner's interest in the real property on which the Project is located and the record regal title.

,	4.6	CONT	RACT D	OCUMEN	NTS (Jnless	otherwi	se spe-
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	cost.							

4.7	OWNER'S REP	PRESENTATIVE	The Owner's auth-
orized	representative is		

The representative shall be fully acquainted with the Project, and shall have authority to bind the Owner in all matters requiring the Owner's approval, authorization or written notice. If the Owner changes its representative or the representative's authority as listed above, the Owner shall immediately notify the Contractor in writing.

- **4.8 OWNER'S CUTTING AND PATCHING** Cutting, patching, or altering the Work by the Owner or Others shall be done with the prior written approval of the Contractor, which approval shall not be unreasonably withheld.
- **4.9 OWNER'S RIGHT TO CLEAN UP** In case of a dispute between the Contractor and Others with regard to respective responsibilities for cleaning up at the Worksite, the Owner may implement appropriate cleanup measures and allocate the cost among those responsible.
- 4.10 COST OF CORRECTING DAMAGED OR DE-STROYED WORK With regard to damage or loss attribut-

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able to the acts or omissions of the Owner or Others and not to the Contractor, the Owner may either (a) promptly remedy the damage or loss or (b) accept the damage or loss. If the Contractor incurs additional costs and/or is delayed due to such loss or damage, the Contractor shall be entitled to an equitable adjustment in the GMP, estimated Cost of the Work, Contractor's Fee, Date of Substantial Completion and/or Date of Final Completion and, if appropriate, the Compensation for Preconstruction Services.

ARTICLE 5

SUBCONTRACTS

5.1 SUBCONTRACTORS The Work not performed by the Contractor with its own forces shall be performed by Subcontractors. All subcontracts shall be issued on a lump sum basis unless the Owner has given prior written approval of a different method of payment to the Subcontractor.

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

- **5.2.1** As soon after the execution of this Agreement as possible the Contractor shall provide the Owner, and if directed, the Architect/Engineer with a written list of the posed subcontractors and significant material suppliers. If the Owner has a reasonable objection to any proposed subcontractor or material supplier, the Owner shall notify the Contractor in writing. Failure to promptly object shall constitute acceptance.
- **5.2.2** If the Owner has reasonably and promptly objected as provided in Subparagraph 5.2.1, the Contractor small not contract with the proposed subcontractor or material supplier, and the Contractor shall propose another acceptable to the Owner. An appropriate Change Order shall reflect any increase or decrease in the GMR on Dates of Substantial and/or Final Completion because of the substitution.
- 5.3 BINDING OF SUBCONTRACTORS AND MATERIAL SUPPLIERS The Contractor agrees to bind every Subcontractor and Material Supplier (and require every Subcontractor to so bind its subcontractors and Material Suppliers) to all the provisions of this Agreement and the Contract Documents as they apply to the Subcontractor's and Material Supplier's portions of the Work.
- **5.4 LABOR RELATIONS** (Insert here any conditions, obligations or requirements relative to labor relations and their effect on the Project. Legal counsel is recommended) •

5.5 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

- **5.5.1** If this Agreement is terminated, each subcontract agreement shall be assigned by the Contractor to the Owner, subject to the prior rights of any surety, provided that:
 - .1 this Agreement is terminated by the Owner pursuant to Paragraphs 12.3 or 12.4; and
 - **2** the Owner accepts such assignment after termination by notifying the Subcontractor and Contractor in writing.
- **5.5.2** If the Owner accepts such an assignment, and the Work has been suspended for more than thirty (30) consecutive days, following termination, the Subcontractor's compensation shall be equitably adjusted as a result of the suspension.

TIME

6.1// PERFORMANCE OF THE WORK

6.1.1 CATE OF COMMENCEMENT The Date of Comnercement is the date of this Agreement as first written in Article 1 unless otherwise set forth below: (Insert here any special provisions concerning notices to proceed and the Date of Commencement)

The Work shall proceed in general accordance with the Schedule of Work as such schedule may be amended from time to time, subject to other provisions of this Agreement.

6.1.2 SUBSTANTIAL/ FINAL COMPLETION Unless the parties agree or otherwise, the Date of Substantial Completion and/or the Date of Final Completion shall be established in Amendment No. 1 to this Agreement subject to adjustments as provided for in the Contract Documents. The Owner and the Contractor may agree not to establish such dates, or in the alternative, to establish one but not the other of the two dates. If such dates are not established upon the execution of this Agreement, at such time as GMP is accepted a Date of Substantial Completion and/or Date of Final Completion of the Work shall be established in Amend-

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ment No.1. If a GMP is not established and the parties desire to establish a Date of Substantial Completion and/or Date of Final Completion, it shall be set forth in Amendment No.1.

- **6.1.3** Time limits stated above are of the essence of this Agreement.
- **6.1.4** The Contractor shall not knowingly commence the Work before the effective date of insurance that is required to be provided by the Contractor and Owner.

6.2 SCHEDULE OF THE WORK

- **6.2.1** Before submitting the first application for payment, the Contractor shall submit to the Owner and, if directed, the Architect/Engineer a Schedule of the Work that shall show the dates on which the Contractor plans to commence and complete various parts of the Work, including dates on which information and approvals are required from the Owner. On the Owner's written approval of the Schedule of the Work, the Contractor shall comply with it unless directed by the Owner to do otherwise. The Contractor shall update the schedule on a monthly basis or at appropriate intervals as required by the conditions of the Work and the Project.
- 6.2.2 The Owner may determine the sequence in which the Work shall be performed, provided it does not unlead sonably interfere with the approved project schedule. The Owner may require the Contractor to make reasonable changes in the sequence at any time during the performance of the Work in order to facilitate the performance of work by the Owner or Others. To the extent such changes increase Contractor's time and costs the GMP and Dates of Substantial and/or Final Completion shall be equitably adjusted

6.3 DELAYS AND EXTENSIONS OF TIME

If the Contractor is delayed at any time in the com-6.3.1 mencement or progress of the Work by any cause beyond the control of the Contractor, the Contractor shall be entitled to an equitable extension of the Date of Substantial Completion and/or Date of Final Completion. In addition, if the Contractor incurs additional costs as a result of such delay, the Contractor shall be entitled to an equitable adjustment in the GMP subject to Paragraph 11.2. Examples of causes beyond the control of the Contractor include, but are not limited to the following: acts or omissions of the Owner, the Architect/Engineer or Others; changes in the Work or the sequencing of the Work ordered by the Owner, or arising from decisions of the Owner that impact the time of performance of the Work; labor disputes not involving the Contractor; fire; encountering Hazardous Materials; adverse weather conditions not reasonably anticipated; concealed or unknown conditions; delay authorized by the Owner pending dispute resolution and suspension by the Owner under Paragraph 12.1. The Contractor shall process any requests

for equitable extensions of Contract Time and/or equitable adjustment in Contract Price in accordance with the provisions of Article 9.

- **6.3.2** To the extent a delay in the progress of the Work is caused by adverse weather conditions not reasonably anticipated, fire, unusual transportation delays, general labor disputes impacting the Project but not specifically related to the Worksite, governmental agencies, or unavoidable accidents or circumstances, the Contractor shall only be entitled to its actual costs without fee and an extension of the Date of Substantial Completion and/or the Date of Final Completion.
- **6.3.3 NOTICE OF DELAYS** In the event the lays to the Work are encountered for any reason, the Contractor shall provide prompt written notice to the Qwinex of the cause of such delays after Contractor first recognizes the delay.
- 6.4 NOTICE OF DELAY CLAIMS If the Contractor requests an equitable extension of contract Time and/or an equitable adjustment in contract Price as a result of a delay described in Subparagraph 6.3.1, the Contractor shall give the Owner written notice of the claim in accordance with Paragraph 9.4. In the contractor causes delay in the completion of the Work, the Owner shall be entitled to recover its additional costs subject to Paragraph 11.2. The Owner shall process any such claim against the Contractor in accordance with Article 9.
- MONITORING PROGRESS AND COSTS Following acceptance by the Owner of the GMP, the Contractor shall establish a process for monitoring actual costs against the GMP and actual progress against the Schedule of Work. The Contractor will provide written reports to the owner at intervals as agreed to by the parties on the status of the Work, showing variances between actual costs and the GMP and actual progress as compared to the Schedule of Work, including estimates of future costs and recovery programs if actual progress indicates that the Dates of Substantial Completion and/or Final Completion may not be met.

ARTICLE 7

COMPENSATION AND GUARANTEED MAXIMUM PRICE

- **7.1** The Owner shall compensate the Contractor for Work performed on the following basis:
 - .1 the Cost of the Work as allowed in Article 8; and
 - **.2** the Contractor's Fee paid in proportion to the Work performed subject to adjustment as provided in Paragraph 7.4.

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- The compensation to be paid shall be limited to the GMP established in this Amendment No. 1, as the GMP may be adjusted under Article 9.
- **7.2.1** Payment for Work performed shall be as set forth in Article 10.
- 7.3 **CONTRACTOR'S FEE** The Contractor's Fee shall be as follows, subject to adjustment as provided in Paragraph 7.4: (State whether a stipulated sum or other basis. If a stipulated sum, state what portion of the sum shall be payable each month)

PRECONSTRUCTION SERVICES COMPENSA-

TION The Contractor shall be compensated for Preconstruction Services, as set forth in Paragraphs 3.2 and 3.3, as follows: (State whether a stipulated sum, actual cost, or other basis. If a stipulated sum, state what portion of the sum shall be payable each month)

ADJUSTMENT IN THE CONTRACTOR'S FEE

Adjustment in the Contractor's Fee shall be made as follows:

for changes in the Work as provided in Article 9, the Contractor's Fee shall be adjust follows:

The Owner agrees to pay the Contractor for the Cost of the Work as defined in this Article. This payment shall be in addition to the Contractor's Fee stipulated in Paragraph√7.3

COST-TEMS

Wages paid for labor in the direct employ of the Sontractor in the performance of the Work.

8.2.2 Salaries of the Contractor's employees when stationed at the field office, in whatever capacity employed, employees engaged on the road expediting the production or transportation of material and equipment, and employees from the principal or branch office performing the functions

- for delays in the Work not caused by the Contractor, except as provided in Paragraph 6.3, there shall be an equitable adjustment in the Contractor's Fee to compensate the Contractor for increased expenses; and
- if the Contractor is placed in charge of managing the replacement of an insured or uninsured loss, the Contractor shall be paid an additional fee in the same proportion that the Contractor's Fee bears to the estimated Cost of the Work for the replacement.
- Cost of all employee benefits and taxes, including but not limited to, workers' compensation, unemployment compensation, Social Security, health, welfare, retirement and other fringe benefits as required by law, labor agreements, or paid under the Contractor's standard personnel policy, insofar as such costs are paid to employees of the Contractor who are included in the Cost of the Work under Subparagraphs 8.2.2 and 8.2.3.
- Reasonable transportation, travel, hotel and moving expenses of the Contractor's personnel incurred in connection with the Work.

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- **8.2.5** Cost of all materials, supplies and equipment incorporated in the Work, including costs of inspection and testing if not provided by the Owner, transportation, storage and handling.
- **8.2.6** Payments made by the Contractor to Subcontractors for work performed under this Agreement.
- **8.2.7** Cost, including transportation and maintenance of all materials, supplies, equipment, temporary facilities and hand tools not owned by the workers that are used or consumed in the performance of the Work, less salvage value and/or residual value; and cost less salvage value on such items used, but not consumed that remain the property of the Contractor.
- **8.2.8** Rental charges of all necessary machinery and equipment, exclusive of hand tools owned by workers, used at the Worksite, whether rented from the Contractor or Others, including installation, repair and replacement, dismantling, removal, maintenance, transportation and delivery costs. Rental from unrelated third parties shall be reimbursed at actual cost. Rentals from the Contractor or its affiliates, subsidiaries or related parties shall be reimbursed at the prevailing rates in the locality of the Worksite up to eighty-five percent (85%) of the value of the piace of equipment.
- **8.2.9** Cost of the premiums for all insurance and surety bonds which the Contractor is required to procure or deems necessary, and approved by the Owner.
- **8.2.10** Sales, use, gross receipts or other taxes, tariffs of duties related to the Work for which the Contractor's liable.
- **8.2.11** Permits, fees, licenses, tests, to altres, damages for infringement of patents and/or copyrights, including costs of defending related suits for which the Contractor is not responsible as set forth in Paragraph 37, and deposits lost for causes other than the Contractor's negligence.
- **8.2.12** Losses, expenses or damages to the extent not compensated by insurance or otherwise, and the cost of corrective work during the Construction Phase and for a period of one year following the Date of Substantial Completion, provided that such losses, expenses, damages or corrective work did not arise from the negligence of the Contractor.
- **8.2.13** All costs associated with establishing, equipping, operating, maintaining and demobilizing the field office.
- **8.2.14** All costs associated with demobilizing and remobilizing the field office and the Contractor's workforce, including Subcontractor workforces, as a result of a suspension of the Work by the Owner.

- **8.2.15** Reproduction costs, photographs, cost of telegrams, facsimile transmissions, long distance telephone calls, data processing services, postage, express delivery charges, telephone service at the Worksite and reasonable petty cash expenses at the field office.
- **8.2.16** All water, power and fuel costs necessary for the Work.
- **8.2.17** Cost of removal of all nonhazardous substances, debris and waste materials.
- **8.2.18** Costs incurred due to an emergency affecting the safety of persons and/or property.
- **8.2.19** Legal, mediation and arbitration fees and costs, other than those arising from disputes between the Owner and the Contractor, reasonably and topsety resulting from the Contractor's performance of the Work.
- **8.2.20** Additional costs resulting from laws, ordinances, rules, regulations and taxes enacted after the date of this Agreement.
- **8.2.21** All losts directly incurred in the performance of the Work of in connection with the Project, and not included in the Contractor's Fee as set forth in Article 7, which are reasonably interable from the Contract Documents as necessary to produce the intended results.
- shall accrue to the Owner to the extent such payments are made directly by the Owner. To the extent payments are made with funds of the Contractor, all cash discounts shall accrue to the Contractor. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment, shall be credited to the Cost of the Work.

ARTICLE 9

CHANGES

Changes in the Work that are within the general scope of this Agreement shall be accomplished, without invalidating this Agreement, by Change Order and Interim Directed Change.

9.1 CHANGE ORDER

9.1.1 The Contractor may request and/or the Owner may order changes in the Work or the timing or sequencing of the Work that impacts the GMP or the estimated Cost of the Work, Contractor's Fee, Date of Substantial Completion and/or Date of Final Completion and, if appropriate, the Compensation for Preconstruction Services. All such

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changes in the Work shall be formalized in a Change Order. Any such requests for changes in the Work shall be processed in accordance with this Article 9.

9.1.2 The Owner and the Contractor shall negotiate in good faith an equitable adjustment to the GMP and/or the Date of Substantial Completion and/or Date of Final Completion and shall conclude these negotiations as expeditiously as possible. Acceptance of the Change Order and any equitable adjustment in the GMP and/or Date of Substantial Completion and/or Date of Final Completion shall not be unreasonably withheld.

9.2 INTERIM DIRECTED CHANGES

- **9.2.1** The Owner may issue a written Interim Directed Change directing a change in the Work prior to reaching agreement with the Contractor on the adjustment, if any, in the GMP and/or the Date of Substantial Completion and/or Date of Final Completion.
- **9.2.2** The Owner and the Contractor shall negotiate expeditiously and in good faith for appropriate adjustments, as applicable, to the GMP and/or the Date of Substantial Completion and/or Date of Final Completion arising out of Interno Directed Changes. As the changed Work is performed the Contractor shall submit its costs for such Work with its application for payment beginning with the next application for payment beginning with the next application for payment within thirty (30) days of the issuance of the interim Directed Change. If there is a dispute a to the cost to the Owner, the Owner shall pay the Contractor fifty percent (50%) of its estimated cost to perform the work. In such event, the parties reserve their rights as to the disputed amount, subject to the requirements of Article 12.
- **9.2.3** When the Owner and the Contractor agree upon the adjustments in the GMP and/or the Cate of Substantial Completion and/or Date of Final Completion for a change in the Work directed by an Interim Directed Change, such agreement shall be the subject of an appropriate Change Order. The Change Order shall include all outstanding Interim Directed Changes is such since the last Change Order.

9.3 DETERMINATION OF COST

- **9.3.1** An increase or decrease in the GMP and/or the Date of Substantial Completion and/or Date of Final Completion resulting from a change in the Work shall be determined by one or more of the following methods:
 - .1 unit prices set forth in this Agreement or as subsequently agreed;
 - 2 a mutually accepted, itemized lump sum;
 - .3 costs calculated on a basis agreed upon by the Owner and Contractor plus a Fee (either a lump

sum or a fee based on a percentage of cost) to which they agree; or

- A if an increase or decrease cannot be agreed to as set forth in Clauses .1 though .3 above, and the Owner issues an Interim Directed Change, the cost of the change in the Work shall be determined by the reasonable actual expense and savings of the performance of the Work resulting from the change. If there is a net increase in the GMP, the Contractor's Fee shall be adjusted accordingly. In case of a net decrease in the GMP, the Contractor's Fee shall not be adjusted unless ten percent (10%) or more of the Project is deleted. The Contractor shall maintain a documented itemized accounting evidencing the expenses and savings.
- 9.3.2 If unit prices are set forth in the Contract Documents or are subsequently agreed to by the parties, but the character or quantity of such unit terms as originally contemplated is so different in a proposed Change Order that the original unit prices will cause substantial inequity to the Owner or the Contractor, such unit prices shall be equitably adjusted.
- **9.3.3** If the owner and the Contractor disagree as to whather work required by the Owner is within the scope of the Work, the Contractor shall furnish the Owner with an estimate of the costs to perform the disputed work in accordance with the Owner's interpretations.
- **9.3.4** If the Owner issues a written order for the Contractor to proceed, the Contractor shall perform the disputed work and the Owner shall pay the Contractor fifty percent (50%) of its estimated cost to perform the work. In such event, both parties reserve their rights as to whether the work was within the scope of the Work. The Owner's payment does not prejudice its right to be reimbursed should it be determined that the disputed work was within the scope of Work. The Contractor's receipt of payment for the disputed work does not prejudice its right to receive full payment for the disputed work should it be determined that the disputed work is not within the scope of the Work.

9.4 CLAIMS FOR ADDITIONAL COST OR TIME

Except as provided in Subparagraph 6.3.2 and Paragraph 6.4 for any claim for an increase in the GMP and/or the Date of Substantial Completion and/or Date of Final Completion, the Contractor shall give the Owner written notice of the claim within fourteen (14) days after the occurrence giving rise to the claim or within fourteen (14) days after the Contractor first recognizes the condition giving rise to the claim whichever is later. Except in an emergency, notice shall be given before proceeding with the Work. Any change in the GMP and/or the Date of Substantial Completion and/or Date of Final Completion resulting from such claim shall be authorized by Change Order.

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ARTICLE 10

PAYMENT

days from the date of execution of this Agreement, the Contractor shall prepare and submit to the Owner and, if directed, the Architect/Engineer, a schedule of values apportioned to the various divisions or phases of the Work. Each line item contained in the schedule of values shall be assigned a value such that the total of all items shall equal the GMP.

10.2 PROGRESS PAYMENTS

10.2.1 APPLICATIONS The Contractor shall submit to the Owner, and, if directed, its Architect/Engineer a monthly application for payment no later than the $_{\scriptscriptstyle \perp}$) day of the calendar month for the pre- lackceding thirty (30) Days; or contractor's applications for payment shall be itemized and supported by the Contractor's schedule of values and any other substantiating data as required by this Agreement. Payment applications shall include payment requests on account of properly authorized Change Orders or Interim Directed Changes. The Owner shall pay the amount otherwise due on any payment appli cation, no later than twenty (20) days after the Contractor has submitted a complete and accurate payment application. The Owner may deduct from any progress payment amounts as may be retained pursuar(t to Subparagrap) 10.2.4.

proved by the Owner, applications for payment may include materials and equipment not yet incorporated into the Work but delivered to and suitably stored on site of off-site including applicable insurance, storage and transportation costs to the Worksite. Approval of payment applications for off-site stored materials and equipment shall be conditioned on submission by the Contractor of bills of sale and proof of applicable insurance, or such of the procedures satisfactory to the Owner to establish the proper valuation of the stored materials and equipment, the Owner's title to such materials and equipment and to otherwise protect the Owner's interests therein, including transportation to the Worksite.

10.2.3 LIEN WAIVERS AND LIENS

10.2.3.1 PARTIAL LIEN WAIVERS AND AFFIDAVITS If

requested by the Owner, as a prerequisite for payment, the Contractor shall provide partial lien and claim waivers in the amount of the application for payment and affidavits from its Subcontractors and Material Suppliers for the completed Work. Such waivers shall be conditional upon payment. In no event shall the Contractor be required to sign an unconditional waiver of lien or claim, either partial or final, prior to

receiving payment or in an amount in excess of what it has been paid.

10.2.3.2 RESPONSIBILITY FOR LIENS If Owner has made payments in the time required by this Article 10, the Contractor shall, within thirty (30) days after filing, cause the removal of any liens filed against the premises or public improvement fund by any party or parties performing labor or services or supplying materials in connection with the Work. If the Contractor fails to take such action on a lien, the Owner may cause the lien to be removed at the Contractor's expense, including bond costs and reasonable attorney's fees. This Clause shall not apply if there is a dispute pursuant to Article 13 relating to the subject matter of the lien.

.1 ance each early finishing Subcontractor has completed its work and that work has been accepted by the Owner, the Owner may release linal retention on that portion of the Work;

after the Work is fifty percent (50%) complete, the Owner shall withhold no additional retainage and shall pay the Contractor the full amount of what is due on account of progress payments:

.3 the Owner may, in its sole discretion, reduce the amount to be retained at any time.

In lieu of retainage, the Contractor may furnish securities, acceptable to the Owner, to be held by the Owner. The interest on such securities shall accrue to the Contractor.

10.3 ADJUSTMENT OF CONTRACTOR'S PAYMENT APPLICATION The Owner may adjust or reject a payment application or nullify a previously approved payment application, in whole or in part, as may reasonably be necessary to protect the Owner from loss or damage based upon the following, to the extent that the Contractor is responsible therefor under the Contract:

- .1 the Contractor's repeated failure to perform the Work as required by the Contract Documents;
- loss or damage arising out of or relating to this Agreement and caused by the Contractor to the Owner or Others to whom the Owner may be liable;

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- the Contractor's failure to properly pay Subcontractors and Material Suppliers following receipt of such payment from the Owner;
- Defective Work not corrected in a timely fashion:
- reasonable evidence of delay in performance of the Work such that the Work will not be completed by the Dates of Substantial and/or Final Completion; and
- .6 reasonable evidence demonstrating that the unpaid balance of the GMP is insufficient to fund the cost to complete the Work.

The Owner shall give written notice to the Contractor at the time of disapproving or nullifying an application for payment of the specific reasons therefor. When the above reasons for disapproving or nullifying an application for payment are removed, payment shall be made for the amounts previously withheld.

- ACCEPTANCE OF WORK Neither the Owner payment of progress payments nor its partial or full use or occupancy of the Project constitutes acceptance of Workingt complying with the Contract Documents.
- PAYMENT DELAY If for any reason not the fault of the Contractor the Contractor does not receive a progress payment from the Owner within seven (7) days after the time such payment is due as defined in Subparagraph 10 then the Contractor, upon giving seven (7) days' written notice to the Owner, and without prejudice to and in addition to any other legal remedies, may stop Work until payment of the full amount owing to the Contractor has been received, including interest from the date payment was due. The GMP and Dates of Substantial and/or Final Completion shall be equitably adjusted by a Change order or reasonable cost and delay resulting from shutdown, delay and start-up.

10.6 SUBSTANTIAL COMPLETION

10.6.1 The Contractor shall notify the Owner and, if directed, its Architect/Engineer when it considers Substantial Completion of the Work or a designated portion to have been achieved. The Owner, with the assistance of its Architect/Engineer, shall promptly conduct an inspection to determine whether the Work or designated portion can be occupied or utilized for its intended use by the Owner without excessive interference in completing any remaining unfinished Work by the Contractor. If the Owner determines that the Work or designated portion has not reached Substantial Completion, the Owner, with the assistance of its Architect/Engineer shall promptly compile a list of items to be completed or corrected so the Owner may occupy or uti-

lize the Work or designated portion for its intended use. The Contractor shall promptly complete all items on the list.

- 10.6.2 When Substantial Completion of the Work or a designated portion is achieved, the Contractor shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, and the respective responsibilities of the Owner and Contractor for interim items such as security, maintenance, utilities, insurance and damage to the Work, and fixing the time for completion of all items on the list accompanying the Certificate. The Certificate of Substantial Completion shall be submitted by the Contractor to the Owner, and if directed, to its Architect/Engineer for the Owner's written acceptance of responsibilities assigned in the Certificate.
- 10.6.3 Unless otherwise provided in the Oerfificate of Substantial Completion, warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or a designated portion.
- 10.6.4 Upon acceptance by the Owner of the Certificate of Substantial Completion, the Owner shall pay to the Contractor the remaining retainage held by the Owner for the Work described in the Certificate of Substantial Completion less a sum equal to two hundred percent (200%) of the estimater cost of completing or correcting remaining items on that part of the Work, as agreed to by the Owner and Conractor as necessary to achieve Final Completion. Uncompleted items shall be completed by the Contractor in a mutually agreed time frame. The Owner shall pay the Contractor monthly the amount retained for unfinished items as each item is completed.

PARTIAL OCCUPANCY OR USE 10.7

10.7.1 The Owner may occupy or use completed or partially completed portions of the Work when (a) the portion of the Work is designated in a Certificate of Substantial Completion, (b) appropriate insurer(s) consent to the occupancy or use, and (c) public authorities authorize the occupancy or use. The Contractor shall not unreasonably withhold consent to partial occupancy or use. Owner shall not unreasonably refuse to accept partial occupancy.

FINAL COMPLETION AND FINAL PAYMENT 10.8

- **10.8.1** Upon notification from the Contractor that the Work is complete and ready for final inspection and acceptance, the Owner, with the assistance of its Architect/Engineer shall promptly conduct an inspection to determine if the Work has been completed and is acceptable under the Contract Documents.
- 10.8.2 When the Work is complete, the Contractor shall prepare for the Owner's acceptance a final application

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for payment stating that to the best of the Contractor's knowledge, and based on the Owner's inspections, the Work has reached final completion in accordance with the Contract Documents.

10.8.3 Final payment of the balance of the GMP shall be made to the Contractor within twenty (20) days after the Contractor has submitted an application for final payment, including submissions required under Subparagraph 10.8.4, and a Certificate of Final Completion has been executed by the Owner and Contractor.

10.8.4 Final payment shall be due on the Contractor's submission of the following to the Owner:

- .1 an affidavit declaring any indebtedness connected with the Work, e.g. payrolls or invoices for materials or equipment, to have been paid, satisfied or to be paid with the proceeds of final payment, so as not to encumber the Owner's property;
- as-built drawings, manuals, copies of warranties and all other close-out documents required by the Contract Documents;
- .3 release of any liens, conditioned on that payment being received;
- .4 consent of any surety; and
- any outstanding known and unreported accidents or injuries experienced by the Contractor or its Subcontractors at the Worksite.

10.8.5 If, after Substantial Completion of the Work, the Final Completion of a portion of the Work is materially delayed through no fault of the Contractor the Owner shall pay the balance due for portions of the Work fully completed and accepted. If the remaining contract balance for Work not fully completed and accepted is less than the retained amount prior to payment, the Contractor shall submit to the Owner and it directed the Architect/Engineer the written consent of any subject to payment of the balance due for portions of the Work that are fully completed and accepted. Such payment shall not constitute a waiver of claims, but otherwise shall be governed by Paragraph 10.8.

10.8.6 Claims not reserved in writing with the making of final payment shall be waived except for claims relating to liens or similar encumbrances, warranties and Defective Work.

10.8.7 ACCEPTANCE OF FINAL PAYMENT Unless the Contractor provides written identification of unsettled claims with an application for final payment, its acceptance of final payment constitutes a waiver of such claims.

10.9 LATE PAYMENT Payments due but unpaid shall bear interest from the date payment is due at the prime rate prevailing at the place of the Project.

ARTICLE 11

INDEMNITY, INSURANCE, WAIVERS AND BONDS

11.1 INDEMNITY

11.1.1 To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold the Owner, Owner's officers, directors, members, consultants, agents, and employees, the Architect/Engineer and Others hamless from all claims for bodily injury and property demage, other than to the Work itself and other property instruct under Subparagraph 11.4, that may arise from the performance of the Work, but only to the extent of the indigingent acts or omissions of the Contractor, Subcontractors anyone employed directly or indirectly by any of them or by anyone for whose acts any of them may be liable. The Contractor shall not be required to defend, indemnify or hold harmless the Owner, the Architect/Engineer or Others.

To the fullest extent permitted by law, the Owner shall detend, indemnify and hold harmless the Contractor, its officers, directors, members, consultants, agents, and employees, Subcontractors or anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable from all claims for bodily injury and property damage, other than property insured under Subparagraph 11.4.1, that may arise from the performance of work by Owner, Architect/Engineer or Others, to the extent of the negligence attributed to such acts or omissions by Owner, Architect/Engineer or Others.

11.2 MUTUAL WAIVER OF CONSEQUENTIAL DAM-

AGE The Owner and the Contractor agree to waive all claims against each other for any consequential damages that may arise out of or relate to this Agreement. The Owner agrees to waive damages including but not limited to the Owner's loss of use of the Project, any rental expenses incurred, loss of income, profit or financing related to the Project, as well as the loss of business, the services of employees, or loss of reputation. The Contractor agrees to waive damages including but not limited to the loss of business, loss of financing, principal office overhead and expenses, loss of profits not related to this Project, loss of bonding capacity or loss of reputation. This Paragraph 11.2 shall not be construed to preclude contractual provisions for liquidated damages when such provisions relate to direct damages only. The provisions of this Paragraph shall also apply to the termination of this Agreement and shall survive such termination.

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11.3 INSURANCE

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C.

11.3.1 Prior to the start of the Work, the Contractor shall procure and maintain in force Workers Compensation Insurance, Employers' Liability Insurance, Business Automobile Liability Insurance, and Commercial General Liability Insurance (CGL). The CGL policy shall include coverage for liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury, contractual liability, and broad form property damage. The primary CGL coverage shall also name the Owner as an additional insured for liability arising out of the Work. If requested, the Contractor shall provide the owner with certificates of the insurance coverages required.

The Contractor's Employers' Liability, Business Automobile Liability and Commercial General Liability policies, as required in this Subparagraph 11.3.1, shall be written with at least the following limits of liability

.1 Employers' Liability

a. \$_____ Bodily Injury by Accident Each Accident

Bodily Injury by Dis

Business Automobile Liability Insurance

Commercial General Liability Insurance

Each Occurrence

General Aggregate

\$_____
Products/Completed

Operations Aggregate

d. \$_____ Personal and Advertising Injury Limit **11.3.2** Employers' Liability, Business Automobile Liability and Commercial General Liability coverages required under Subparagraph 11.3.1 may be arranged under a single policy for the full limits required or by a combination of underlying policies with the balance provided by Excess and/or Umbrella Liability policies.

11.3.3 The Contractor shall maintain in effect all insurance coverage required under Subparagraph 11.3.1 with insurance companies lawfully authorized to do business in the jurisdiction in which the Project is located. If the Contractor fails to obtain or maintain any insurance coverage required under this Agreement, the Owner may purchase such coverage and charge the expense to the Contractor, or terminate this Agreement.

The policies of insurance required under Subparagraph 11.3.1 shall contain a provision that the coverages afforded under the policies will not be cancelled or allowed to expire until at least thirty days prior written notice has been given to the Owner. The Contractor shall maintain completed operations liability insurance for one year after acceptance of the Work Substantial Completion of the Project, or to the time required by the Contract Documents, whichever is longer. Prior to commencement of the Work, Contractor shall furnish the winer with certificates evidencing the required cover-

PROPERTY INSURANCE

1.4.1 Before the start of the Work, the Owner shall obtain and maintain Builder's Risk all risk upon the entire Project for the full cost of replacement at the time of loss. This insurance shall also name the Contractor, Subcontractors and Subsubcontractors and the Architect/Engineer as named insureds. This insurance shall be written as a builder's risk "all risk" or equivalent form to cover all risks or physical loss except those specifically excluded by the policy, and shall insure at least against the perils of fire, lightning, explosion, windstorm, and hail, smoke, aircraft (except aircraft, including helicopter, operated by or on behalf of Contractor) and vehicles, riot and civil commotion, theft, vandalism, malicious mischief, debris removal, flood, earthquake, earth movement, water damage, wind, testing if applicable, collapse however caused, and damage resulting from defective design, workmanship or material. The Owner shall be solely responsible for any deductible amounts or coinsurance penalties. This policy shall provide for a waiver of subrogation in favor of the Contractor, Subcontractors, Subsubcontractors and Material Suppliers. This insurance shall remain in effect until final payment has been made or until no person or entity other than the Owner has an insurable interest in the property to be covered by this insurance, whichever is sooner. Partial occupancy or use of the Work shall not commence until the Owner has secured the consent of the insurance company or companies providing the coverage

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required in this Subparagraph 11.4.1. Prior to commencement of the Work, the Owner shall provide a copy of the property policy or policies obtained in compliance with this Subparagraph 11.4.1.

11.4.2 If the Owner does not intend to purchase the property insurance required by this Agreement, including all of the coverages and deductibles described herein, the Owner shall give written notice to the Contractor before the Work is commenced. The Contractor may then provide insurance to protect its interests and the interests of the Subcontractors and Subsubcontractors including the coverage of deductibles. The cost of this insurance shall be charged to the Owner in a Change Order. The Owner shall be responsible for all of Contractor's costs reasonably attributed to the Owner's failure or neglect in purchasing or maintaining the coverage described above.

Contractor shall indemnify and hold harmost the Owner against any and all liability, claims, demands, damages, losses and expenses, including attorney's fees, incompection with or arising out of any damage or alleged damage to any of Owner's existing adjacent property that may arise from the performance of the Work, to the extent of the negligent acts or omissions of the Contractor, Subcontractor or anyone employed directly or indirectly by any of them or by anyone for whose acts any of them may be liable.

and maintain its own liability insurance for protection against claims arising out of the performance of this Agreement, including without limitation, loss of use and claims, losses and expenses arising out of the Owner's errors or omissions.

11.6 ROYALTIES, PATENTS AND COPYRIGHTS The Contractor shall pay all royalties and license fees which may be due on the inclusion of any patented or copyrighted materials, methods or systems selected by the Contractor and incorporated in the Work. The Contractor shall defend, indemnify and hold the Owner harmless from all suits or claims for infringement of any patent rights or copyrights arising out of such selection. The Owner agrees to defend, indemnify and hold the Contractor harmless from any suits or claims of infringement of any patent rights or copyrights

arising out of any patented or copyrighted materials, methods or systems specified by the Owner or Architect/Engineer.

11.7 **BONDS**

11.7.1 Performance and Payment Bonds (Check one only)

are ______ / are not _____
required of the Contractor. Such bonds shall be issued by a surety licensed in the state of the location of the Project and must be acceptable to the Owner. The penal sum of the bonds shall be 100% of the GMP.

ARTICLE 12

SUSPENSION, NOTICE TO CURE AND TERMINATION OF THE AGREEMENT

SUSPENSION BY OWNER FOR CONVENIENCE

12.1.1 OWNER SUSPENSION Should the Owner order the Contractor in writing to suspend, delay, or interrupt the performance of the Work for such period of time as may be determined to be appropriate for the convenience of the Owner and not due to any act or omission of the Contractor or any person or entity for whose acts or omissions the Contractor may be liable, then the Contractor shall immediately suspend, delay or interrupt that portion of the Work as ordered by the Owner. The GMP and the Dates of Substantial and/or Final Completion shall be equitably adjusted by Change Document for the cost and delay resulting from any such suspension.

12.1.2 Any action taken by the Owner that is permitted by any other provision of the Contract Documents and that results in a suspension of part or all of the Work does not constitute a suspension of Work under this Paragraph 12.1.

12.2 NOTICE TO CURE A DEFAULT If the Contractor persistently refuses or fails to supply enough properly skilled workers, proper materials, and/or equipment, to maintain the approved Schedule of the Work in accordance with Article 6, or fails to make prompt payment to its workers, Subcontractors or Material Suppliers, disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or is otherwise guilty of a material breach of a provision of this Agreement, the Contractor may be deemed in default. If the Contractor fails within seven (7) working days after written notification to commence and continue satisfactory correction of such default with diligence and promptness, then the Owner without prejudice to any other rights or remedies may:

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- .1 supply workers and, equipment and other facilities as the Owner deems necessary for the satisfactory correction of the default and charge the cost to the Contractor, who shall be liable for the payment of same including reasonable overhead, profit and attorneys' fees;
- **.2** contract with Others to perform such part of the Work as the Owner determines shall provide the most expeditious correction of the default, and charge the cost to the Contractor; who shall be liable for the payment of same including reasonable overhead, profit and attorneys' fees;
- **.3** withhold payment due the Contractor in accordance with Paragraph 10.3; and
- **4** in the event of an emergency affecting the safety of persons or property, immediately commence and continue satisfactory correction of such default as provided in Subparagraphs 12.2.1 and 12.2.2 without first giving written notice to the Contractor, but shall give prompt written notice of such action to the Contractor following commencement of the action.

12.3 OWNER'S RIGHT TO TERMINATE FOR DE-

12.3.1 TERMINATION BY OWNER FOR DEFAULT within seven (7) days of receipt of a notice to cure pursuan to Paragraph 12.2, the Contractor fails to commense satisfactorily continue correction of the default set forth in the notice to cure, the Owner may notify the Contractor that it intends to terminate this Agreement for default absent appropriate corrective action within fourteen additional days. After the expiration of the additional fourteen-day (14) period, the Owner may terminate this Agreement by written notice absent appropriate corrective action. Termination for default is in addition to any other remedies available to Owner under Paragraph 12.2. If the Owner's cost arising out of the Contractor's failure to cove including the cost of completing the Work and reasonable attorney fees, exceeds the unpaid GMP, the Contractor shall be liable to the Owner for such If the Owner's costs are less than the unpaid GMP the Owner shall pay the difference to the Contractor. In the event the Owner exercises its rights under this Paragraph, upon the request of the Contractor the Owner shall furnish to the Contractor a detailed accounting of the cost

12.3.2 If the Owner or Others perform Work under this Paragraph 12.3, the Owner shall have the right to take and use any materials, supplies and equipment belonging to the Contractor and located at the Worksite for the purpose of completing any remaining Work. Immediately upon comple-

tion of the Work, any remaining materials, supplies or equipment not consumed or incorporated in the Work shall be returned to the Contractor in substantially the same condition as when they were taken, reasonable wear and tear excepted.

12.3.3 If the Contractor files a petition under the Bankruptcy Code, this Agreement shall terminate if the Contractor or the Contractor's trustee rejects the Agreement or, if there has been a default, the Contractor is unable to give adequate assurance that the Contractor will perform as required by this Agreement or otherwise is unable to comply with the requirements for assuming this Agreement under the applicable provisions of the Bankruptcy Code.

12.4 TERMINATION BY OWNER FOR CONVENIENCE

12.4.1 Upon written notice to the Contractor, the Owner may, without cause, terminate this Agreement. The Contractor shall immediately stop the Work, follow the Owner's instructions regarding shutdown and termination procedures, and strive to minimize any further costs.

12.4.2 If the Owner terminates this Agreement pursuant to this Paragraph) 2.4, the Contractor shall be paid for the Work performed to date and for any proven loss, cost or expense in connection with the Work, including all demobilization costs and a premium as set forth below: (Insert here amount agreed to by the parties)

- **12.4.3** If the Owner terminates this Agreement pursuant to Paragraphs 12.3 or 12.4, the Contractor shall:
 - .1 execute and deliver to the Owner all papers and take all action required to assign, transfer and vest in the Owner the rights of the Contractor to all materials, supplies and equipment for which payment has or will be made in accordance with the Contract Documents and all subcontracts, orders and commitments which have been made in accordance with the Contract Documents;
 - **2** exert reasonable efforts to reduce to a minimum the Owner's liability for subcontracts, orders and commitments that have not been fulfilled at the time of the termination:

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AGC DOCUMENT NO. 250 • STANDARD FORM OF AGREEMENT AND GENERAL CONDITIONS BETWEEN OWNER AND CONTRACTOR (Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Services)

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incurred by the Owner.

- .3 cancel any subcontracts, orders and commitments as the Owner directs; and
- **.4** sell at prices approved by the Owner any materials, supplies and equipment as the Owner directs, with all proceeds paid or credited to the Owner.

12.5 CONTRACTOR'S RIGHT TO TERMINATE

- **12.5.1** Upon seven (7) days' written notice to the Owner, the Contractor may terminate this Agreement if the Work has been stopped for a thirty (30) day period through no fault of the Contractor for any of the following reasons:
 - .1 under court order or order of other governmental authorities having jurisdiction;
 - **.2** as a result of the declaration of a national emergency or other governmental act during which, through no act or fault of the Contractor, materials are not available; or
 - .3 suspension by Owner for convenience pursuant to Paragraph 12.1.
- **12.5.2** In addition, upon seven (7) days' written route to the Owner, the Contractor may terminate the Agreement if the Owner:
 - .1 fails to furnish reasonable evidence the sufficient funds are available and committed for the entire cost of the Project in accordance with Paragraph 4.2 or
 - 2 assigns this Agreement over the Contractor's reasonable objection or
 - afails to pay the Contractor in accordance with this Agreement and the Contractor has complied with Paragraph 10.6,
 - 4 ment: otherwise materially breaches this Agree-
- **12.5.3** Upon Permination by the Contractor in accordance with Paragraph 12.5, the Contractor shall be entitled to recover from the Owner payment for all Work executed and for any proven loss, cost or expense in connection with the Work, including all demobilization costs plus reasonable overhead and profit on Work not performed.
- **12.6 OBLIGATIONS ARISING BEFORE TERMINA- TION** Even after termination pursuant to Article 12, the provisions of this Agreement still apply to any Work performed, payments made, events occurring, costs charged or incurred or obligations arising before the termination date.

ARTICLE 13

DISPUTE RESOLUTION

- **13.1 WORK CONTINUANCE AND PAYMENT** Unless otherwise agreed in writing, the Contractor shall continue the Work and maintain the Schedule of the Work during any dispute resolution proceedings. If the Contractor continues to perform, the Owner shall continue to make payments in accordance with this Agreement.
- arises out of or relates to this Agreement or its breach, the parties shall endeavor to settle the dispute first through direct discussions between the parties' representatives, who shall have the authority to settle the dispute first through direct discussions between the parties' representatives are not able to promptly settle the dispute, the senior executives of the parties, who shall have the authority to settle the dispute, shall neet within twenty-one (21) days after the dispute first arises. If the dispute is not settled within seven (7) days from the referral of the dispute to the senior executives; the parties shall submit the dispute to mediction in accordance with Paragraph 13.3.
- suant to Paragraph 13.2, the parties shall endeavor to settle the dispute by mediation under the current Construction industry Mediation Rules of the American Arbitration Association before recourse to any other dispute resolution prosedures. Once one party files a request for mediation with the other party and with the American Arbitration Association, the parties agree to conclude such mediation within sixty (60) days of filing of the request. Either party may terminate the mediation at any time after the first session, but the decision to terminate shall be delivered in person by the party's representative to the other party's representative and the mediator.
- **13.4 DISPUTE RESOLUTION MENU** If the dispute cannot be settled by mediation within sixty (60) days, the parties shall submit the dispute to any dispute resolution procedure selected in Exhibit No.1.
- **13.5 MULTIPARTY PROCEEDING** The parties agree that all parties necessary to resolve a claim shall be parties to the same dispute resolution proceeding. Appropriate provisions shall be included in all other contracts relating to the Work to provide for the consolidation of such dispute resolution procedures.
- **13.6 COST OF DISPUTE RESOLUTION** The prevailing party in any dispute arising out of or relating to this Agreement or its breach that is resolved by a binding dispute resolution procedure selected in Exhibit No.1 shall be entitled to recover from the other party reasonable attorneys fees, costs and expenses incurred by the prevailing party in connection with such dispute resolution process.

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13.7 LIEN RIGHTS Nothing in this Article 13 shall limit any rights or remedies not expressly waived by the Contractor which the Contractor may have under lien laws.

ARTICLE 14

MISCELLANEOUS PROVISIONS

- ASSIGNMENT Neither the Owner nor the Con-14.1 tractor shall assign their interest in this Agreement without the written consent of the other except as to the assignment of proceeds. The terms and conditions of this Agreement shall be binding upon both parties, their partners, successors, assigns and legal representatives. Neither party to this Agreement shall assign the Agreement as a whole without written consent of the other except that the Owner may assign the Agreement to a wholly owned subsidiary of Owner when Owner has fully indemnified Contractor or to an institutional lender providing construction financing for the Project as long as the assignment is no less favorable to the Contractor than this Agreement. In the event of such assignment, the Contractor shall execute any consent reasonably, required. In such event, the wholly owned subsidiary lender shall assume the Owner's rights and obligations under the Contract Documents. If either party attempts to make such an assignment, that party shall nevertheless remain legally responsible for all obligations under this Agreement, unless otherwise agreed by the other party.
- **14.2 GOVERNING LAW** This Agreement shall be governed by the law in effect at the location of the Project.
- 14.3 **SEVERABILITY** The partial or comprete invalidity of any one or more provisions of this Agreement small not affect the validity or continuing force and effect of any other provision.
- either party to insist, in any one or more instances, on the performance of any of the terms, covenants or conditions of this Agreement, or to exercise any of its rights, shall not be construed as a waive or relinquishment of such term, covenant, condition or right with respect to further performance or any other term, covenant, condition or right.
- **14.5 TITLES AND GROUPINGS** The titles given to the articles of this Agreement are for ease of reference only and shall not be relied upon or cited for any other purpose. The grouping of the articles in this Agreement and of the Owner's specifications under the various headings is solely for the purpose of convenient organization and in no event shall the grouping of provisions, the use of paragraphs or the use of headings be construed to limit or alter the meaning of any provisions.

- **14.6 JOINT DRAFTING** The parties expressly agree that this Agreement was jointly drafted, and that both had opportunity to negotiate its terms and to obtain the assistance of counsel in reviewing its terms prior to execution. Therefore, this Agreement shall be construed neither against nor in favor of either party, but shall be construed in a neutral manner.
- **14.7 RIGHTS AND REMEDIES** The parties' rights, liabilities, responsibilities and remedies with respect to this Agreement, whether in contract, tort, negligence or otherwise, shall be exclusively those expressly set forth in this Agreement.
- PRECEDENCE In case of any inconsistency, con-14.8 flict or ambiguity among the Contract Documents, the documents shall govern in the following order (a) Change Orders and written amendments to this Agreement; (b) this Agreement; (c) subject to Subparagraph 15.2.2 the drawings, specifications and addenda issued prior to the execution of this Agreement, (d) approved submittals; (e) information furnished by the Owner pursuant to Paragraph Strother documents listed in this Agreement. Among all the Contract Documents, the term or provision that is most specific or holudes the latest date shall control. Information identified in one Contract Document and not identified in another shall not be considered to be a conflict or inconsisrency frany provision of this Agreement conflicts with or is inconsistent with any other provision of other Contract Documents, the provision of this Agreement governs, unless the other provision specifically refers to the provision it supersedes and replaces in this Agreement.

14.9 OTHER PROVISIONS

(Insert here other provisions, if any, that pertain to this Agreement)

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ARTICLE 15

CONTRACT DOCUMENTS

15.1 The Contract Documents in existence at the time of execution of this Agreement are as follows:

on both consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

15.2.2 In case of conflicts between the drawings and specifications, the specifications shall govern. In any case of omissions or errors in figures, drawings or specifications, the Contractor shall immediately submit the matter to the Owner and, if directed, to its Architect/Engineer for clarification. The Owner's clarifications are final and binding on all parties, subject to an equitable adjustment in Dates of Substantial and/or Final Completion or Price pursuant to Article 9 or dispute resolution in accordance with Article 13.

15.2.3 Where figures are given, they shall be preferred to scaled dimensions.

INTERPRETATION OF CONTRACT DOCUMENTS 15.2

15.2.1 The drawings and specifications are complementary. If Work is shown only on one but not on the other, the Contractor shall perform the Work as though fully described

This Agreement is

15.2.4 Any terms that have well-known technical or trade meanings, unless otherwise specifically defined in this Agreement, shall be interpreted in accordance with their yl-known meanings(

entered in Article 1. ATTEST:_ PRINT NAME: _____ PRINT TITLE: CONTRACTOR: _____ BY: _____ PRINT NAME: _____ PRINT TITLE: 7/00 27

Exhibit No.1	, dated		♦
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AGC DOCUMENT NO. 250 STANDARD FORM OF AGREEMENT AND GENERAL CONDITIONS BETWEEN OWNER AND CONTRACTOR

(Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Services)

DISPUTE RESOLUTION MENU Pursuant to Paragraph 13.4, if neither direct discussions nor mediation successfully resolve the Owner and the Contractor agree the following shall be used to resolve the dispute. (Check the appropriate selection(s). These procedures can be used singularly or progressively as agreed to by the parties.) Dispute Review Board The Dispute Review Board shall be composed brone member selected by the Owner, one ◆ selected by the Contractor, and a third member selected by the Owner and Contractor selected members. This Board shall be selected prior to commencement of construction, shall need periodically, and shall make advisory decisions which may be introduced into evidence at any subsequent dispute resolution process. If a Dispute Review Board is selected, it is understood its various shall precede mediation. Advisory Arbitration Advisory, Arbitration shall be pure uapt to the current Construction Industry Rules of the American Arbitration Association, except that the award shall not be binding on the parties. Mini Trial Each party, in the presence of senior executives, shall submit its position to a mutually selected individ- ♦ ual who shall make a non-binding recommendation to the parties. Such advisory decision may be introduced into evidence at any subsequent dispute resolution process. **Binding Arbitration** Binding Arbitration shall be pursuant to the current Construction Industry Arbitration Rules of ◆ the American Arbitration Association unless the parties mutually agree otherwise. A written demand for arbitration shall be filed with the American Arbitration Association and the other party within a reasonable time after the dispute or claim has arisen but in No event after the applicable statute of limitations for a legal or equitable proceeding would have run. The location of the arbitration proceedings shall be at the office of the American Arbitration Association nearest the Worksite, unless the parties agree otherwise. The arbitration award shall be final. Notwithstanding Paragraph 14.2 this agreement to arbitrate shall be governed by the Federal Arbitration Act and judgment upon the awar may be confirmed in any court having jurisdiction. **litigation** Action may be filed in the appropriate state or federal court located in the jurisdiction in which the Project lacktriangle

7/00

AMENDMENT NO.1, DATED

TO

AGC DOCUMENT NO. 250 STANDARD FORM OF AGREEMENT AND GENERAL CONDITIONS **BETWEEN OWNER AND CONTRACTOR**

(Where the Basis of Payment is a Guaranteed Maximum Price with an Option for Preconstruction Services)

Pursuant to Pa	aragraph 3.3 of the Agreement dated	♦
between the O	wner,	♦
and the Contra	actor,	•
	the Contractor desire to establish a Guaranteed Maximum Price ("GMP") for the Work Therefore, It actor agree as follows:	jeor), the ♦ ne Owner
	ARTICLE 1. GUARANTEED MAXIMUM PRICE	
	r's GMP for the Work, including the Cost of the Work as defined in Article & and the Contractor's Fraph 7.3, is	ee as set). ♦
The GMP is for	r the performance of the Work in accordance with the exhibits listed below, which are part of this A	Agreement.
EXHIBIT A	Drawings and Specifications, including Addenda, if any, and information furnished by the Owner under Paragraph 4.3, dated	
EXHIBIT B	Allowance Items, dated ,	_ pages. ♦
EXHIBIT C	Assumptions and Clarifications on which the GMP is based, dated,,	_ pages. ♦
EXHIBIT D	Schedule of Work, dated , ,,	_ pages. ♦
EXHIBIT E	Alternate Prices, dated,	_ pages. ♦
EXHIBIT F	Unit Prices, dated , ,,	_ pages. ♦
EXHIBIT G	A statement of any work to be self-performed by the Contractor,	nagaa A
	, and the state of	_ µayes. ▼

The Date of Substantial Completion of the Work is	•
ARTICLE 3	B. DATE OF FINAL COMPLETION
The Date of Final Completion of the Work is:	() days after the Date of Substantial Completion, subject to •
adjustments as provided for in the Contract Docum	nents.
This Amendment is entered into as of	•
	P
ATTEST:	MILLOWNER CO.
	PRINT NAME:
	PRINT TITLE:
ATTEST:	CONTRACTOR:
	BY:
	PRINT NAME:
	PRINT TITLE:
	7/00