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## AGREEMENT BETWEEN OWNER AND CONSTRUCTION MANAGER AT RISK

Prepared By



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# **GUIDELINES FOR USE OF EJCDC® CMAR-525, AGREEMENT BETWEEN OWNER AND CONSTRUCTION MANAGER AT RISK**

## **1.0 PURPOSE AND INTENDED USE OF THE DOCUMENT**

### **1.1 Agreement Between Owner and Construction Manager at Risk**

In construction contracting, as a general matter the “agreement” is the legal instrument executed (signed) by the project owner and the construction contractor (in this case the Construction Manager at Risk, also referred to as CMAR), binding the parties to the terms of the contract. See CSI Project Delivery Practice Guide (2020), Section 7.3, p. 306, and CSI Construction Specification Practice Guide (2021), Section 3.3, p. 37. This EJCDC Agreement form serves that basic function, by identifying the parties and the Contract Documents, and establishing the Contract Price and Contract Times.

This Agreement form is drafted to be flexible enough to be used on Construction Manager at Risk projects for public and private contracts, whether awarded through a formal proposal process or as the result of direct negotiations.

The Engineers Joint Contract Documents Committee® (EJCDC) prepares and publishes standard contract forms for construction contracts, as well as bidding-related documents. EJCDC’s Construction Series (C-Series) has been in publication for many decades, in various editions, and is comprised of construction contract and bidding-related documents for projects in which the Owner’s primary representative during construction is the Engineer. The new (as of 2023) EJCDC Construction Manager at Risk Series (CMAR Series) is intended for projects in which the Owner engages a Construction Manager at Risk to provide consulting services during the project design phase, and later serve as contractor for the construction of the project. This Agreement form is specifically intended for Construction Manager at Risk (CMAR) contracts.

CMAR-525 is modeled closely on both EJCDC®C-525, Agreement between Owner and Contractor for Construction Contract (Cost-Plus-Fee) (2018) and EJCDC®CMA-525, Agreement between Owner and Contractor for Construction Contract (Cost-Plus-Fee)—Construction Manager as Advisor Series (2021), borrowing key elements from each. These documents contain many similar provisions. CMAR-525 also borrows concepts and wording from EJCDC’s professional services agreements (such as EJCDC® E-500, Agreement between Owner and Engineer for Professional Services, 2020) to address the CMAR’s Preconstruction Services and Procurement Services obligations.

## **2.0 OVERVIEW OF THE CMAR AGREEMENT PROCESS**

The selection process for the CMAR is typically initiated so the CMAR is on-board as the Preliminary Design Report is in its final draft stages. The CMAR serves in an advisory role to the Owner, Owner’s Advisor, and Engineer as the design is being developed, with the focus on matters of cost and time for construction of the project, constructability, material and equipment selections, allocation and mitigation of risks and procurement strategies. CMAR also develops strategies to be implemented during construction for contract administration, quality management, site safety, and management of the site.

As soon as the CMAR has assessed the Owner’s Construction Budget and anticipated time for construction, it will develop a procurement strategy plan to determine the best way to procure equipment and materials, identify logical work packages to expedite construction, and encourage competition by

prospective subcontractors and suppliers. The CMAR may recommend that long-lead equipment and materials be purchased in advance, even if such items will be installed by a subcontractor, or that early work packages be bid while the design is progressing, all while working to deliver the project within the Owner's budget. To accomplish this build/buy while designing, the Owner may issue Work Authorizations allowing equipment and materials to be purchased and Work to progress before the design is complete. Given that Work will often begin before the design of the project is complete, and Work is authorized in stages, the CMAR agreement must be sufficiently flexible to deal with the uncertainties in determining the cost and time for delivering the project. This obviously requires a great deal of collaboration between the CMAR and the Engineer, Owner, and Owner's Advisor, and flexibility not found in a typical design-bid-build construction project.

Unlike the construction contractor in a traditional project covered in the C-Series documents, the CMAR provides Preconstruction Services and Procurement Services, which are typically compensated on the basis of hourly billing rates. Costs for these services are submitted as part of the Proposals but are not part of the scoring process which considers price. It is recommended that these costs not be included in the selection criterion, so Proposers are not encouraged to cut these costs in order to establish a more favorable position during the selection process. These costs are typically not significant compared to the cost of constructing the project, and the costs of these services should more than be recovered by construction cost savings. These costs are part of the Contract Price and are included in Exhibit A as part of the estimated Contract Price.

The cost of construction has three components: Construction Support Costs, the Cost of the Work, and the CMAR Fee. Construction Support Costs, sometimes referred to as general conditions costs, are based on the requirements for managing the project typically covered in Division 00 and in the Division 01 specifications, and on issues related to site logistics. The CMAR is asked to estimate these costs based on a specified period for construction. These proposed costs are reimbursed on a monthly basis.

Because the project is in the early stages of design when the Owner and CMAR enter into the Contract, it is not practical to fix the cost of building the project (construction cost) with any degree of certainty. The CMAR is typically asked to propose a CMAR Fee and CMAR Contingency Allowance amount as a percentage of the estimated Cost of the Work in response to a Request for Proposals. The Owner typically provides Proposers with an estimated Cost of the Work and an estimated number of days in the Construction Period, usually developed by the Owner's Advisor, so the Proposers can use this to develop pricing an estimated Guaranteed Maximum Price (GMP). The actual GMP is determined later when the design of the Work is more developed, and the Cost of the Work and time required for construction can be determined with a greater degree of accuracy.

The Owner may, at its discretion, include an Owner's Contingency Allowance to cover unforeseen increases in the scope of the Work in the Contract Price. This contingency allowance is not part of the estimated GMP but should be included in the Contract Price which will be used to determine the amount for which the Contract will be awarded.

The Contract Price, which is an estimated cost when the Agreement is signed, is the total of the selected CMAR's compensation for CMAR Services, Construction Support Costs, Cost of the Work, the CMAR Fee, CMAR Contingency Allowances, and the Owner's Contingency Allowance, if any. The Contract Price included in this Agreement, calculated in Exhibit B Basis of Compensation, is based on the amounts proposed by the selected CMAR for CMAR Services, Construction Support Cost, CMAR Fee, and CMAR Contingency Allowance presented in its Proposal as may be modified as the results of negotiations between the Owner and selected CMAR.

Negotiations should be conducted only with the most highly ranked Proposer and be based on changes in scope, terms, and conditions that reallocate risk or other substantive changes. As the Cost of the Work is still to be determined, changes in the Contract Price typically result from changes in the scope of CMAR Services, Construction Support Costs, the CMAR Fee, or the CMAR Contingency Allowance. The Owner may choose to change the Owner’s Contingency, if such a change appears to be prudent to increase or decrease the amount set aside for future changes. Should the Owner and CMAR not be able to agree on any proposed negotiated changes, Owner and CMAR may agree to move forward based on the Contract Price based on the costs originally presented in the Proposal, or the Owner may choose to formally terminate negotiations and begin negotiations with the next most highly ranked Proposer. Laws and regulations may preclude Owner from returning to the previous Proposer. Changes resulting from negotiations should be documented to clearly show the difference in the Contract Documents resulting from negotiations. This may be done using the Contract Amendment form.

### 3.0 OTHER DOCUMENTS

EJCDC documents are intended to be used as a system and changes in one EJCDC document may require a corresponding change in other documents. Other EJCDC documents may also serve as a reference to provide insight or guidance for the preparation of this document.

While preparing this document for use on a specific project, the user may decide to revise or supplement some of the standard provisions. When such changes are made, the user should review whether corresponding changes are needed in the following related EJCDC documents:

EJCDC Doc. No.	Document Title	Edition
CMAR-200	Request for Qualifications—Construction Manager at Risk Series	2023
CMAR-210	Statement of Qualifications—Construction Manager at Risk Series	2023
CMAR-400	Request for Proposals—Construction Manager at Risk Series	2023
CMAR-410	Proposal—Construction Manager at Risk Series	2023
CMAR-545	Work Authorization — Construction Manager at Risk Series	2023
CMAR-700	Standard General Conditions of the Construction Contract—Construction Manager at Risk Series	2023
CMAR-800	Supplementary Conditions of the Construction Contract— Construction Manager at Risk Series	2023

Other documents that provide additional information or guidance for the use of this document include the following:

EJCDC Doc. No.	Document Title	Edition
C-001	Commentary on the 2018 EJCDC Construction Series Documents	2023
CMAR-001	Commentary on the 2023 EJCDC Construction Manager at Risk Series Documents	2023

### 4.0 ORGANIZATION OF INFORMATION

All parties involved in a construction project benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to conflicting requirements, confusion, and unanticipated legal consequences. Careful attention should be given to the guidance provided in EJCDC® N-122/AIA® A521™, Uniform Location of Subject Matter, when preparing construction

documents. EJCDC® N-122/AIA® A521™, is available at no charge from the EJCDC website, [www.ejcdc.org](http://www.ejcdc.org), and from the websites of EJCDC's sponsoring organizations.

In addition, the current editions of MasterFormat and SectionFormat, published by the Construction Specifications Institute, provide useful guidance on the location of information and requirements in construction documents.

## 5.0 GUIDANCE NOTES AND NOTES TO USER

EJCDC Documents include Guidance Notes and Notes to User to provide guidance regarding the preparation of Project specific documents. Guidance Notes and Notes to User are lightly shaded to distinguish them from the proposed text of the document. These notes are intended to provide guidance and instructions to the user in the preparation of the document and are not intended to be included in the completed document.

Guidance Notes provide information regarding the paragraphs which follow, including reasons for the paragraph, discussions of best practices, and alternate approaches for different situations.

Notes to User provide specific information for editing the document. When alternate paragraphs for different situations are presented, explanations on how to select the most appropriate alternate will be provided, with direction to delete those paragraphs not used. Paragraphs will automatically renumber when unused paragraphs are deleted.

Notes to User may also be presented directly in the body of the text. Directions within the body of the text are presented with the instructions in bold font and enclosed within brackets to allow these directions to be easily recognized. See Paragraph 6.1.B for instructions for final editing.

## 6.0 EDITING THIS DOCUMENT

6.1 It is intended that this document be edited for each Contract. Guidelines for editing include:

- A. Remove the cover pages which consist of the title pages, and these Guidelines for Use.
- B. Type in required information as indicated by brackets ([ ]). Bracketed text will usually provide instructions for what is to be inserted in place of the brackets. Delete brackets and change formatting to match existing text after project specific text has been added, for example change “[Project Name]” to “Peach Street Renovation” (without brackets or bold, or quotation marks).
- C. Fill in blanks, if any. It will be more common for information to be inserted by user to be indicated by a prompt in brackets, as described in Paragraph B above, rather than by an underline-style blank.
- D. Most Notes to User are presented before the text to which they apply; some Notes to Users are interspersed in the text, usually within brackets. Delete all “Notes to User” after reviewing each note and taking appropriate action. Delete all associated numbering and brackets.
- E. Complete tables, if any.
- F. Address check-boxes, if any, by clicking the appropriate box.
- G. Delete Guidance Notes.

- H. Update the Table of Contents, if used, to reflect actual page numbers or changes in article or paragraph titles after these Guidelines for Use have been deleted and all other changes have been made.

## 7.0 LICENSE AGREEMENT

This document is subject to the terms and conditions of the **License Agreement, 2023 EJDC® Construction Manager at Risk Series Documents**. A copy of the License Agreement was furnished at the time of purchase of this document and is available for review at [www.ejcdc.org](http://www.ejcdc.org) and the websites of EJDC's sponsoring organizations.

SAMPLE

# AGREEMENT BETWEEN OWNER AND CONSTRUCTION MANAGER AT RISK

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# AGREEMENT BETWEEN OWNER AND CONSTRUCTION MANAGER AT RISK

This Agreement is by and between **[Name of contracting entity]** (“Owner”) and **[Name of Construction Manager at Risk]** (“Construction Manager at Risk” or “CMAR”).

Terms used in this Agreement have the meanings stated herein and in the General Conditions and the Supplementary Conditions.

Owner and CMAR hereby agree as follows:

## ARTICLE 1—THE PROJECT

1.01 The Project, of which the CMAR Services and the Work under the Contract Documents are a part, is generally described as follows:

**[Name of Project]**  
**[Project Number]**

## ARTICLE 2—OWNER’S ADVISOR AND ENGINEER; OWNER’S PROJECT TEAM

### Guidance Notes—Owner’s Advisor and Engineer

1. The basic drafting assumption is that an engineering firm will serve as Engineer, and a different firm (or perhaps an individual) will provide the specialized services of the Owner’s Advisor on a CMAR project.
2. If the functions of Engineer (design and related professional services) and Owner’s Advisor (coordination of services, site representation, contract administration) will be filled by the same entity, enter that entity’s name in both Paragraph 2.01 and Paragraph 2.02. The remainder of this document, and other CMAR Series documents such as CMAR-700, will continue to draw a distinction between the roles of Engineer and Owner’s Advisor, but if a single entity performs both roles then from the CMAR’s perspective it will be working with just one firm.

2.01 The Owner has retained **[insert name of individual or entity]** (Owner’s Advisor or OA) to act as Owner’s representative, assume all duties and responsibilities of advisor to Owner and construction contract administrator on behalf of Owner, and have the rights and authority assigned to Owner’s Advisor in the Contract.

2.02 The Owner has retained **[insert name of engineering firm]** (Engineer) to design the Project, to assume all duties and responsibilities of Engineer during the construction of the Project, and to have the rights and authority assigned to Engineer in the CMAR Contract.

## ARTICLE 3—CMAR SERVICES

3.01 Scope of CMAR Services

**Guidance Notes**—CMAR Services, as defined in this Contract, are comprised of Preconstruction Services and Procurement Services (also defined terms), together with any other services expressly designated as

CMAR Services. The Preconstruction Services and Procurement Services needed will vary significantly with the size and complexity of the Project. This Article contains the general terms and conditions associated with both Preconstruction Services and Procurement Services, and any other services expressly assigned to CMAR, while the detailed scope of work is found in Exhibit A Scope of CMAR Services.

- A. CMAR will perform the CMAR Services set forth in Exhibit A, Scope of CMAR Services, as authorized, and other specified CMAR Services as expressly set forth in a Contract Amendment. Services rendered by CMAR to meet its general construction and management obligations are not CMAR Services, and are not compensated as CMAR Services, unless expressly designated as such.
- B. CMAR Services are categorized in Exhibit A as Basic Preconstruction Services; Additional Preconstruction Services; Basic Procurement Services; Additional Procurement Services; and Special Services.
- C. In Exhibit A and in scope of CMAR Services provisions in Contract Amendments, imperative sentences with respect to the performance of services are directives to CMAR, unless expressly indicated otherwise.

### 3.02 Basic Services, Additional Services, and Special Services

- A. Basic Services are CMAR Services (categorized as Preconstruction or Procurement) that are identified as Basic Services in Exhibit A.
- B. In addition to Basic Services, CMAR shall provide specific Additional Preconstruction Services and Additional Procurement Services within the scope set forth in Exhibit A, if Owner authorizes CMAR to do so. Owner or Owner's Advisor will authorize the specified Additional Services in a Contract Amendment. The Contract Amendment will describe the tasks to be performed, the compensation to be paid, the time for performance, the deliverables to be provided, and other applicable terms, if any. If a specific Additional Service has been priced during the CMAR selection process, such price will be binding on CMAR and Owner unless modified by mutual agreement.
- C. In addition to the services identified as Basic Services and Additional Services, after the Effective Date of the Contract the Owner and CMAR may identify Project-related services that were not contemplated at the time the Agreement was executed, are necessary to the Project, and should be added to the scope of CMAR Services. If Owner and CMAR mutually agree, a Contract Amendment will be issued that specifies the scope of such Special Services, the compensation to be paid, the time for performance, the deliverables to be provided, and other applicable terms. Any amount included in the Agreement for Special Services will serve as the Owner's contingency for Special Services, if authorized by the Owner.

### 3.03 Authorization to Provide CMAR Services

- A. CMAR is authorized by the execution of this Agreement to begin providing Basic Preconstruction Services set forth in Article 1 in Exhibit A, Scope of CMAR Services, as of the Effective Date of the Contract.
- B. CMAR shall provide Basic Procurement Services set forth in Article 3 in Exhibit A, Scope of CMAR Services, upon receipt of notice to commence such services from Owner or the Owner's Advisor, or in a Contract Amendment establishing the scope and compensation for Procurement Services.

- C. All other CMAR Services, including Additional Preconstruction Services, Additional Procurement Services, and Special Services, if any, must be authorized by Owner or Owner's Advisor.

### 3.04 Compensation for Basic CMAR Services

**Guidance Notes**—If Preconstruction Services are well defined, compensation for these services may be based on a lump sum cost for simplicity of managing compensation using Paragraph A. If services are less defined, services may be provided on an hourly billing rate basis with a not-to-exceed limit on the total cost for such services using Paragraph B. The Request for Proposals used in the CMAR selection process will typically establish the compensation method (or methods) for CMAR Services, and the prices stipulated by the successful CMAR candidate typically will be binding and entered here.

**Notes to User**—Select either Paragraph 3.04.A or 3.04.B and delete the other.

- A. Basic Preconstruction Services—Owner will compensate CMAR for Basic Preconstruction Services, provided per Article 1, Exhibit A—Scope of Work for CMAR Services, the lump sum (stipulated price) for the Price for CMAR Basic Preconstruction Services shown in Exhibit B Table 1, Compensation for CMAR Services.
- B. Basic Preconstruction Services—Owner will compensate CMAR for Basic Preconstruction Services, provided per Article 1, Exhibit A—Scope of Work for CMAR Services, for each hour earned at the Billing Rates shown in Exhibit B—Table 4, Compensation for CMAR Services. Such compensation is subject to the not-to-exceed limit shown for Price for CMAR Basic Preconstruction Services in Table 1.

**Guidance Notes**—If Procurement Services are well defined, compensation for these services may be based on a lump sum cost for simplicity of managing compensation using Paragraph C. If services are less defined, services may be provided on an hourly billing rate basis with a not-to-exceed limit on the total cost for such services using Paragraph D. If the procurement strategy has not been defined and the scope of Procurement Phase services may expand significantly (for example, for numerous Work Packages and Work Authorizations), use Paragraph E to defer determining this cost until the anticipated scope for Procurement Services may be better defined, typically in the Procurement Strategy plan develop per Paragraph 1.13 of the Scope of CMAR Services.

**Notes to User**—Select either Paragraph 3.04.C, 3.04.D or 3.04.E and delete the paragraphs not used.

- C. Basic Procurement Services—Owner will compensate CMAR for CMAR Procurement Services, provided per Article 3, Exhibit A—Scope of Work for CMAR Services, the lump sum (stipulated price) for the Price for CMAR Basic Procurement Services shown in Exhibit B Table 1, Compensation for CMAR Services.
- D. Basic Procurement Services—Owner will compensate CMAR for CMAR Procurement Services, provided per Article 3, Exhibit A—Scope of Work for CMAR Services, for each hour earned at the Billing Rates shown in Exhibit B—Table 4, Compensation for CMAR Services. Such compensation is subject to the not-to-exceed limit shown for Price for CMAR Basic Procurement Services in Table 1.

- E. The compensation amount for Basic Procurement Services will be determined in a Contract Amendment for Procurement Services based on the Billing Rates shown in Exhibit B—Table 4, Compensation for CMAR Services. The scope and compensation for these services will be based on the Procurement Strategy Plan developed in accordance with Exhibit A—Scope of Work for CMAR Services, Paragraph 1.13.
- 3.05 Compensation for Additional CMAR Services
- A. For Additional Preconstruction Services and Additional Procurement Services, Owner will compensate CMAR for each hour earned at the Billing Rates shown in Exhibit B—Table 4, Compensation for CMAR Services.
- 3.06 Compensation for Special Services
- A. Owner will compensate CMAR for Special Services pursuant to the specific compensation terms in the Contract Amendment establishing and authorizing such Special Services.
- 3.07 Payment for CMAR Services
- A. Preparation and Submittal of Invoices
    - 1. CMAR will prepare and submit invoices for CMAR Services to Owner’s Advisor on a monthly basis in a format acceptable to Owner’s Advisor.
    - 2. CMAR may not submit invoices and is not entitled to compensation for Additional Services or Special Services unless Owner has authorized such services through execution of a Contract Amendment.
    - 3. CMAR will provide documentation acceptable to the Owner to allow Owner to verify CMAR’s charges included in invoices.
  - B. Payments

**Guidance Notes**—Paragraph 3.04 provides for compensation to be based on a stipulated price amount (Lump Sum), at established billing rates, or a combination of the two. Paragraph 1 describes provisions for CMAR Services payments made on a stipulated sum basis and Paragraph 2 describes provisions for payments based on Billing Rates with a Not to Exceed limitation on total payment. Delete the paragraph not used, depending on how payment is structured.

- 1. Payment for CMAR Services compensated on a Lump Sum (stipulated price) basis:
  - a. The Lump Sum amount includes compensation for CMAR’s services, and services of CMAR Subconsultants, if any. Appropriate amounts are to be incorporated in the Lump Sum to account for labor costs, overhead, profit, expenses, and other cost.
  - b. The amount invoiced each billing period will be based on the CMAR’s estimate of the percentage of the total CMAR Services completed during the billing period.
  - c. The compensation paid to CMAR for Basic Services will not exceed the Lump Sum amount unless duly authorized by a Contract Amendment.

2. Payment for CMAR Services compensated using Hourly Billing Rate basis:
  - a. Owner shall pay CMAR an amount equal to the cumulative hours charged to the Project by CMAR's personnel times Hourly Billing Rates for each applicable Classification.
  - b. Hourly Billing Rates include all of the following—salaries and wages paid to personnel in each billing classification; the cost of customary and statutory benefits; general and administrative overhead; non-project operating costs; and operating margin or profit.
  - c. Hourly Billing Rates are to include all expenses related to providing CMAR Services including the following categories:
    - 1) Transportation and subsistence;
    - 2) Technology charges and data charges associated with the use of computers and tablets;
    - 3) Printing and reproduction of documents;
    - 4) Health and safety related equipment and training; and
    - 5) Special equipment used for CMAR Services.
  3. The amounts paid to CMAR under this Article are deemed to include full compensation for CMAR's overhead and profit associated with such labor and expenses.
- C. Time of Payment
  1. Owner will make payments for CMAR Services within **[10]** days after receiving an approved invoice from the Owner's Advisor.
  2. If Owner fails to make any payment due CMAR for CMAR Services within 30 days after receipt of CMAR's invoice, then:
    - a. Amounts due CMAR will be increased at the rate of 1.0% per month, or the maximum rate of interest permitted by law, if less, from said thirtieth day; and
    - b. CMAR may, after giving 7 days' written notice to Owner, suspend services under this Agreement until Owner has paid all amounts due for services, expenses, and other related charges in full. Owner waives any and all claims against CMAR for this suspension.
  3. Owner may withhold only the contested portions of an invoice and must pay the undisputed portion of the invoice.
- D. Compensation for CMAR Services discussed in Article 3 is not compensation for the Work and is not included in the GMP. No retainage will be withheld from payments of CMAR Services; however, such payments are subject to the set-off provisions in General Conditions Article 15.

## ARTICLE 4—COMPENSATION FOR PERFORMANCE AND COMPLETION OF THE WORK

- 4.01 Owner shall compensate CMAR for performance and completion of the Work in accordance with the Contract Documents. Payment for Work will consist of the following:
- A. Payment for Construction Support Costs in accordance with Article 5, and as set forth in Exhibit B Table 1 lines 6-9;
  - B. Payment for Cost of the Work as provided in Article 6; and
  - C. Payment of a CMAR Fee as set forth in Article 7 and in Exhibit B Table 1.
- 4.02 This Agreement establishes a CMAR Contingency Allowance for use in paying for unforeseen costs as set forth in Article 8.
- 4.03 The amounts for CMAR's compensation summarized in Paragraph 4.01 are subject to additions and deletions as provided in the Contract, up to limitations established in the Guaranteed Maximum Price (GMP) as provided in Article 11.

## ARTICLE 5—CONSTRUCTION SUPPORT COSTS

**Guidance Notes**—Construction Support Costs separate those items which apply to or benefit the Project as a whole and are not easily associated with Work in a specific Work Authorization. In general, costs that can be associated solely with Work in a specific Work Authorization are treated as Cost of the Work, to which CMAR applies the CMAR Fee. The CMAR Fee does not apply to Construction Support Costs. The intent is to establish an encompassing price for Construction Support Costs, and therefore avoid voluminous submittals of itemized costs, disputes about whether an item is included, etc.

- 5.01 Construction Support Costs
- A. Construction Support Costs (field overhead or “general conditions” costs) are those costs associated with and in support of construction that are not directly related to specific construction activities. Construction Support Costs are not compensable as Cost of the Work and must not be included by CMAR in proposed Work Authorizations submitted to the Owner for approval and issuance. Construction Support Costs include without limitation:
    - 1. CMAR project management costs, including project managers, superintendents, field engineering staff, and clerical support located at the Site;
    - 2. Management of Subcontractors and Suppliers;
    - 3. Management of delegated professional design services, if any;
    - 4. Costs associated with safety programs, including safety managers and safety representatives;
    - 5. Quality management not specifically designated to be covered in a Work Authorization;
    - 6. Costs associated with obtaining permits, or paying patent fees or royalties, if not specifically designated to be covered in a Work Authorization;
    - 7. Costs for permit inspections, and other inspections required by Laws and Regulations not specifically designated to be covered in a Work Authorization;

8. Compliance with Laws and Regulations;
  9. Taxes, other than those specifically designated to be covered in a Work Authorization;
  10. Contract administration costs, including costs for:
    - a. Meetings, reporting, notifications, and other communications and coordination,
    - b. Document management,
    - c. Submittals, record data, and other documentation,
    - d. Creating and maintaining Project schedules per Article 4 of the General Conditions,
    - e. Changes to the CMAR Contract per Article 11 of the General Conditions,
    - f. Applications for Payment per Article 15 of the General Conditions,
    - g. Maintenance of Record Documents, and
    - h. Other contract administration costs included in the Contract Documents;
  11. Performance, payment, and warranty bonds, if any, provided to cover the construction of the entire Project;
  12. General insurance costs, excluding Builder's Risk or other coverage that applies specifically to Work and specifically designated to be covered in a Work Authorization, and Worker's Compensation Insurance which is to be included in payroll cost per Paragraph 6.02.A.1;
  13. Costs associated with CMAR temporary facilities and temporary infrastructure at the Site;
  14. The cost of purchasing, renting, or furnishing small tools and hand tools. These are defined as any tool or equipment whose current price, if purchased new at retail would be less than \$500 **[or insert other threshold price]**;
  15. Costs for site maintenance, storage of materials, waste disposal, environmental controls, management of water, protection of site and adjacent property, cleaning during construction and final cleaning;
  16. Costs associated with startup and commissioning of the Work, including training of Owner's personnel, temporary operation of facilities by the CMAR; and performance acceptance testing, if any;
  17. Costs associated with substantial completion, partial utilization, and final completion; and
  18. Costs associated with general warranty, guarantees and correction of defective work during the Correction Period.
- B. The organization of the Work into Work Packages will not result in changes to the CMAR's compensation for Construction Support Costs.

#### 5.02 Fixed Construction Support Costs

- A. Fixed Construction Support Costs are those costs which are not time sensitive and will not increase if the performance of the Work extends beyond the Construction Period designated for Substantial Completion of the Work described in Article 13. The amount for Fixed

Construction Support Cost is shown in Exhibit B, Table 2–Basis of Compensation for Fixed Construction Support Costs.

#### 5.03 Time-Sensitive Construction Support Costs

- A. Time-Sensitive Construction Support Costs are those costs which will increase if the performance of the Work extends beyond the Construction Period designated for Substantial Completion described in Article 13. The amount for Time-Sensitive Construction Support Costs based on the Construction Period is shown in Exhibit B, Table 3–Basis of Compensation for Time-Sensitive Construction Support Costs.
- B. The Construction Support Costs Extended Rate is determined by dividing the Time-Sensitive Construction Support Costs by the projected number of days in the Construction Period. CMAR will be entitled to additional compensation for Time-Sensitive Construction Support Costs at the Construction Support Extended Rate shown in Exhibit B, Table 3–Basis of Compensation for Time-Sensitive Construction Support Cost if the extended time is associated with a compensable delay under the provisions of the General Conditions.

#### 5.04 Changes in Construction Support Costs

- A. Owner and CMAR acknowledge that the Construction Support Costs stipulated amounts set forth in this Agreement's Exhibit B, Table 1, lines 7, 8, and 9 (Construction Support Costs Contract Amounts) and the Construction Support Costs Extended Rate (determined as set forth in Paragraph 5.03.B) are approximations of actual costs intended to liquidate and stipulate CMAR's compensation for Construction Support Costs, encourage efficiency and cost control, and reduce Owner's and CMAR's administrative and accounting effort. The Construction Support Costs Contract Amounts and the Construction Support Costs Extended Rate will not be increased except in cases in which CMAR demonstrates:
  - 1. An excessive and unanticipated increase in Construction Support Costs resulting from scope changes in the Work or other causes directly attributable to Owner; and
  - 2. Such increase in costs has not otherwise been compensated in a Work Authorization, Contract Amendment, or Change Order.

#### 5.05 Compensation for Construction Support Costs

- A. Payments for Fixed Construction Support Costs will be made in equal monthly increments determined by dividing the Fixed Construction Support Costs Contract Amount by the projected number of months in the Construction Period. No payment will be made for Fixed Construction Support Costs in excess of the Fixed Construction Support Costs Contract Amount unless this Amount is adjusted in accordance with provisions in Paragraph 5.04.
- B. Payments for Time-Sensitive Construction Support Costs will be made in equal monthly increments determined by dividing the Time-Sensitive Construction Support Costs Contract Amount by the projected number of months in the Construction Period. No payment will be made for Time-Sensitive Construction Support Costs in excess of the Time-Sensitive Construction Support Contract Amount unless this Amount is adjusted in accordance with provisions in Paragraph 5.04.
- C. Payments will be made for Time-Sensitive Construction Support Costs associated with compensable delays under the provisions of the General Conditions at the Construction Support Costs Extended Rate as described in Paragraph 5.03.B.

## ARTICLE 6—COST OF THE WORK

### 6.01 Purposes for Determination of Cost of the Work

- A. The term Cost of the Work is defined in the General Conditions, Article 1, as the sum of eligible costs incurred by CMAR for the performance of the Work, as allowed by the Cost of the Work provisions set forth in the Agreement; such provisions are set forth in this Article 6. Cost of the Work is determined for each Work Authorization, subject to any limits described in this Article. The provisions of this Article are used for two distinct purposes:
  - 1. To determine Cost of the Work for purposes of CMAR's base compensation for construction under this Contract; or
  - 2. When needed to determine the value of a Change Proposal, Change Order, Claim, set-off, or other adjustment to the Guaranteed Maximum Price. When the value of any such adjustment is determined based on Cost of the Work, CMAR is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. For purposes of determining CMAR's base compensation, Cost of the Work applies only to Work that has been duly authorized in a Work Authorization.
- C. The Cost of the Work will include only those items identified in Paragraph 6.02.

### 6.02 Cost of the Work

- A. Payroll Cost—Payroll costs for employees in the direct employ of CMAR performing Work described in Work Authorizations, and excluding those efforts covered in Construction Support costs per Paragraph 5.01. Payroll costs will be based on actual amounts paid as indicated on Certified Payroll reports. Payroll costs are to include salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation insurance, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturdays, Sundays, or legal holidays, will be included in the above to the extent authorized by Owner.
- B. Incorporated Equipment and Material Cost—Cost of all materials and equipment furnished or incorporated in the Work, including costs for transportation and storage prior to delivery to the site. Cost for proper storage at the Site is to be included in Construction Support Cost per Paragraph 5.01. Cost for equipment is to include Suppliers' services for submittals, factory and field testing and inspections, installation checks, start-up assistance, and training, if any. All cash discounts accrue to CMAR unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and CMAR shall make provisions so that they may be obtained.
- C. Consumable Equipment and Material Cost—Cost, including transportation and maintenance, of all materials, supplies, equipment, tools, and machinery at the Site, which are consumed in the performance of the Work, less market value of such items used but not consumed which remain the property of CMAR. In establishing costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or

salvage value of such items, whichever is less. CMAR will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such items.

- D. Subcontractor Cost—Payments made by CMAR to Subcontractors for Work performed by Subcontractors. CMAR shall obtain competitive bids from subcontractors acceptable to Owner and CMAR and shall deliver such bids to Owner, which will then determine, with the advice of Owner’s Advisor, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor’s Cost of the Work and fee will be determined in the same manner as CMAR’s Cost of the Work and fee as provided in this Article 6.
- E. Construction Equipment Cost—Cost of providing construction equipment and machinery to construct the Work described in the Work Authorization.
  - 1. Include all the costs for transporting, loading, unloading, assembly, dismantling, and removal of the equipment and machinery with Consumable Equipment and Material Cost per Paragraph 6.02.C.
  - 2. Construction equipment and machinery cost will be billed at rates approved by the Owner’s Advisor as part of each Work Authorization.
    - a. All operating costs will include costs for fuel, maintenance, parts, and associated labor. Billing rates for equipment fueling and maintenance do not include payroll costs for equipment operators, which will be included in Payroll cost per Paragraph 6.02.A.

**Guidance Notes**—One of the most commonly used rate books is the EquipmentWatch Cost Recovery Rental Rate Blue Book, which is online at <https://equipmentwatch.com/blue-book-cost-recovery/>. Modify Paragraph 2) if a different rate book is to be used.

- b. Costs for equipment and machinery owned by CMAR or a Subcontractor cannot exceed the rates shown for equipment in the EquipmentWatch Cost Recovery Rental Rate Blue Book, (<https://equipmentwatch.com/blue-book-cost-recovery/>) An hourly rate will be computed by dividing the monthly rates by 176. These rates will include all operating costs per Paragraph 6.02.E.2.a.
- c. Payment for rented equipment will be in accordance with rental agreements as to price, including any surcharge or special rates applicable to overtime use of the construction equipment or machinery, and all such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
- d. No markup is allowed on equipment rented or leased from any company owned in total or in part by CMAR or a Subcontractor, or is owned by the same holding company or a company with a close legal affiliation to CMAR or Subcontractor, since markups are included in rental or lease rates.
- e. Equipment used for site maintenance is to be included in Construction Support Costs. Equipment used for multiple Work Authorizations must be billed on the basis of time worked on each Work Authorization.

3. With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Guaranteed Maximum Price (changed Work), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

F. Supplemental Costs which consist of the following:

1. The proportion of necessary transportation, travel, and subsistence expenses of CMAR's employees incurred in the discharge of duties connected with the Work Authorization.
2. Costs of special consultants including engineers, architects, testing laboratories, and surveyors, employed or retained for services specifically related to the Work Authorization and expressly excluding costs incurred by consultants performing CMAR Services.
3. Sales, consumer, use, and other similar taxes related to the Work, and for which CMAR is liable, as imposed by Laws and Regulations.
4. Deposits lost for causes other than the negligence of CMAR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable.
5. Royalty payments and fees for permits, patents, and licenses directly related to a Work Authorization.
6. The cost of premiums for performance, payment, and warranty bonds obtained by CMAR as a requirement of a Work Authorization, in addition to the bonds purchased for the construction as a whole within the scope of Construction Support Costs per Paragraph 5.01.A.11. Final compensation for such premium costs will be based on reconciled costs at the conclusion of the Work.
7. Cost for any Subcontractor bonds that must be required to protect Owner's and CMAR's interests in the event of a Subcontractor default associated with a Work Authorization. Final compensation for such premium costs will be based on reconciled costs at the conclusion of the Work.
8. The cost of premiums for Builder's Risk insurance and other Work Authorization-specific insurance that CMAR is required by the Contract Documents to purchase and maintain, but not including costs of commercial general liability, automobile liability, and contractor's pollution liability insurance which are covered as Construction Support Costs per Article 5. The compensation for worker's compensation is included as part of payroll costs per Paragraph 6.01.A.1. Final compensation for such premium costs will be based on reconciled costs at the conclusion of the Work.

6.03 Specific Exclusions from Cost of the Work

- A. The following items are not included in the Cost of the Work. This express itemization does not confer Cost of the Work or compensable status to otherwise ineligible items not listed here. Cost for any items not included in the Cost of the Work are to be included in the CMAR Fee unless specifically itemized at Construction Support Costs described in Article 5.

1. Payroll costs and other compensation of CMAR's officers, executives, principals, general managers, project managers, superintendents, safety managers, safety representatives, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by CMAR, whether at the Site or in CMAR's principal or branch office for general administration of the Work. The payroll costs and other compensation excluded here are to be considered administrative costs covered by Construction Support Cost or the CMAR Fee.
2. Expenses of CMAR's principal and branch offices.
3. Any part of CMAR's capital expenses, including interest on CMAR's capital employed for the Work and charges against CMAR for delinquent payments.
4. Costs due to the negligence of CMAR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable.
5. Cost for the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property not paid from CMAR's Contingency per Article 8.
6. Expenses incurred in preparing and advancing Claims.
7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 6.03.
8. Costs recovered or reimbursed under other Construction Support Cost or Cost of the Work provisions.

6.04 Compensation for the Cost of the Work

- A. Compensation for the Cost of the Work is based on the amount earned for Work completed for each Work Authorization.

**ARTICLE 7—CONSTRUCTION MANAGER AT RISK FEE**

7.01 The CMAR Fee will be determined as follows:

**Notes to User**—Depending on the CMAR Fee that has been selected or negotiated, select one of the following Paragraphs 7.01.A, 7.01.B, or 7.01.C, and delete the other two:

1. Use Paragraph 7.01.A for a CMAR Fee that is a percentage fee on the Cost of the Work for the Contract as a whole.
2. Use Paragraph 7.01.B for a CMAR Fee that is a set of percentage fees each based on specific portions of the Cost of the Work. Indicate in the table the fee percentages that will apply to the Work categories.
3. Use Paragraph 7.01.C when CMAR will be paid a stipulated fee, regardless of the Cost of the Work.

- A. The CMAR Fee is a specified percentage of the Cost of the Work as shown in Exhibit B Table 1. No fee will be payable on the basis of costs itemized as excluded in Paragraph 6.03.

- B. The CMAR Fee is a set of specified percentages, each applied to a specific portion of the Cost of the Work, as shown in Exhibit B Table 1. No fee will be payable on the basis of costs itemized as excluded in Paragraph 6.03.
- C. The CMAR Fee is a lump sum fee as shown in Exhibit B Table 1. This CMAR Fee is subject to increases or decreases for changes in the Work as provided in General Conditions Paragraph 11.01.

## **ARTICLE 8—CMAR CONTINGENCY ALLOWANCE**

### **8.01 CMAR Contingency Allowance**

- A. The CMAR Contingency Allowance funds, shown in Exhibit B Table 1—Estimated Guaranteed Maximum Price, are for the exclusive use of CMAR while executing the Work, to reimburse CMAR for costs due to unforeseen causes, unintentional errors, or events which cannot specifically be anticipated at the time Work Authorizations are issued.
- B. The CMAR Contingency Allowance funds may be used by CMAR for costs sustained by either CMAR itself or a Subcontractor, at CMAR’s discretion. The CMAR contingency funds may not be used for costs which are reimbursable or recoverable under other provisions of the Contract.
- C. Without excluding other possible uses of the CMAR Contingency Allowance, the following uses are expressly acknowledged as eligible uses of the CMAR Contingency Allowance funds:
  - 1. Losses and damages, and related expenses, caused by damage to the Work, not compensated by insurance or otherwise, sustained by CMAR or a Subcontractor in connection with the performance of the Work;
  - 2. Corrective work, regardless of fault if non-conformance is unintended;
  - 3. Subcontractor defaults;
  - 4. Overruns in Construction Support Costs;
  - 5. Builder’s Risk deductibles;
  - 6. Verified excusable errors in estimates; or
  - 7. Non-compensable overtime and other acceleration costs.
- D. CMAR shall replenish the CMAR Contingency Allowance by restoring money withdrawn with money recovered (1) from bonds and insurance coverage payments for such expenditures, and (2) from defaulting Subcontractors or Suppliers.
- E. The CMAR Contingency Allowance will not be used to fund Owner-directed changes in the Work. Such changes will be administered through the contractual procedures established for changes in the scope of the Work, including expenditures from the Owner’s Contingency Allowance, if any, Work Authorizations as modified by Change Order, and Contract Amendments or other modifications that impact the Guaranteed Maximum Price.
- F. The CMAR Contingency Allowance will not be used to recover the cost of items that are compensable as a Cost of the Work.

- G. The CMAR Fee does not apply to expenditures from the CMAR Contingency Allowance. CMAR will not be entitled to any additional overhead, profit, or other markup on any CMAR Contingency Allowance expenditure.
- H. The designated CMAR Contingency Allowance, as duly replenished, is the maximum amount available to CMAR to recover eligible costs under this Article; Owner will not increase the CMAR Contingency Allowance or otherwise reimburse CMAR for eligible costs incurred in excess of the CMAR Contingency Allowance.
- I. CMAR will submit applications for reimbursement from the CMAR Contingency Allowance to Owner's Advisor, in a format acceptable to Owner's Advisor, together with appropriate documentation. Payments from the CMAR Contingency Allowance will be recorded in the Application for Payment.

## **ARTICLE 9—WORK AUTHORIZATIONS**

### **9.01 General Provisions Regarding Work Authorizations**

- A. Work Authorizations will be based on Work Packages prepared by Owner's Advisor and Engineer describing equipment and materials to be purchased for installation or Work to be performed in accordance with the approved Work Authorization.
- B. All Work to be provided by CMAR must be authorized by the issuance of a Work Authorization specifying or referencing the scope of Work to be conducted.

**Guidance Notes**—EJCDC® CMAR-545 Work Authorization—Construction Manager at Risk Series (2023) is used to authorize Work Packages. Reference may be made to a specific form which can be provided to CMAR or made an attachment to this Agreement, or as stated in Paragraph C can be referenced as the form provided by the Owner's Advisor.

- C. Owner's Advisor will issue each Work Authorization using the Work Authorization form provided by the Owner's Advisor.
- D. The Work Authorization will indicate the compensation to which CMAR is entitled for providing the authorized Work.
- E. CMAR is not entitled to compensation for providing Work that Owner's Advisor has not authorized.

### **9.02 First Work Authorization**

- A. The first Work Authorization, authorizing the commencement of construction, will include, in addition to authorization for a specific Work Package, or multiple specific Work Packages, the authorization of expenditures by CMAR for Contract-specific (1) performance and payment bond premiums (2) Builder's Risk premiums, if CMAR is required to purchase and maintain Builder's Risk insurance, and (3) premiums for other specific insurance policies required by the Contract.

## ARTICLE 10—PROCUREMENT OF SUBCONTRACTORS; CMAR SELF-PERFORMANCE OF AUTHORIZED WORK

### 10.01 Performance of the Authorized Work

#### Guidance Notes—Performance of the Work

1. For public-sector CMAR projects the process for selecting subcontractors and suppliers, and even the self-performance of Work by the CMAR, tend to be regulated by Laws and Regulations. Securing competitive construction prices is a goal for all CMAR projects, public and private. Meeting applicable requirements and attaining competitive pricing goals for the Work typically require the use of one of two of the following strategies, and sometimes both: 1) requiring competitive bids for all Work, including Work the CMAR would like to self-perform and 2) limiting the amount of Work that can be self-performed by the CMAR.
2. Limiting the amount of self-performed Work can be as simple as specifying a limiting percentage but could also identify specific Work Packages on which the CMAR will not be allowed to self-perform.
3. As to price competition, some exceptions may be made, with concurrence of the Owner, to allow sole-source subcontracts for specific specialty subcontractors and equipment. Restrictions on the use of sole-source procurements should comply with Laws and Regulations. Language has been included that restricts the CMAR to procurement practices allowed by Laws and Regulations that apply to the Owner, which while not allowing the CMAR the unfettered ability to procure Work, materials, and equipment as CMAR would in a private-sector context, nonetheless provides some safeguards built into procurement Laws and Regulations and helps Owner and CMAR avoid challenges to the procurement process.
  - A. CMAR will solicit and receive competitive bids on the Work included in each Work Authorization, including the purchase of materials and equipment. CMAR will prepare bid packages supporting the Work Authorization and make opportunities available to Subcontractors and Suppliers in a way that will increase competition and allow bids by trade contractors or specialty entities. CMAR may prepare bid packages for Work the CMAR may wish to self-perform, so long as doing so will not limit bidding by competing bidders (prospective subcontractors).

**Notes to User**—In Paragraph 10.01.B, select the subparagraph (1-4) that applies, and delete the remainder.

- B. CMAR may bid on Work Packages, or portions thereof, if fully qualified to self-perform the subject Work, subject to the following limitations:
  1. CMAR may not self-perform more than **[number]** percent of the total scope of Work under this Contract, as determined on a monetary basis. This percentage applies to the Contract as a whole and does not impose a limitation on specific Work Authorizations. CMAR may self-perform all of the Work in a single Work Authorization so long as the percentage of Work on the total scope of Work for the Contract is within these limitations.

2. CMAR may not self-perform more than **[number]** percent of the **[describe specific types of Work]**, determined on a monetary basis. This percentage applies to the **[describe specific types of Work]** and does not impose a limitation on other Work Authorizations.
3. CMAR may self-perform no more than **[number]** of the **[describe specific types of Work Packages]**.
4. CMAR may not self-perform Work on the following packages:
  - a. **[List work for which CMAR may not submit a bid to self-perform]**.
- C. CMAR must submit its bids in advance of receiving other bids, and in the same manner that other bids are to be submitted. Bids are to be opened in the presence of the Owner’s Advisor.
- D. CMAR will award the subcontract for the Work under the Work Authorization to the responsible bidder submitting the lowest responsive bid for that portion of the Work for which bids are received. CMAR may self-perform Work when CMAR is the low bidder.

## ARTICLE 11—GUARANTEED MAXIMUM PRICE

### Guidance Notes—Guaranteed Maximum Price

1. Setting and developing the GMP is a critical part of the Owner-CMAR Contract. EJCDC recognizes that there are many project-specific factors that will influence how the GMP provisions will be structured and urges the parties to revise and refine these provisions to suit the needs of the Project. Owner’s Advisor will typically play a vital role in devising a strategy for GMP and assuring that the contract provisions implement that strategy.
2. Because the CMAR is selected and this Owner-CMAR Contract entered into when the design is still in a preliminary stage, it is usually not practical to establish a binding GMP at the outset of the Contract (when this Agreement is signed).
3. It is common for CMAR projects for the Work to be performed under a series of Work Packages that are authorized over a period of time. For example, the design for initial site work might be completed and the related Work Package authorized while design of the facilities themselves is still in progress. Under that example the portion of the GMP related to the site work could be established first, and the GMP further developed as more design is completed and the various Work Packages are authorized.
4. EJCDC generally recommends that binding GMPs, partial or complete, be established before the corresponding design is 100% complete and the Work Package has been bid out. The provisions below indicate setting the GMP for the complete project at 90% design completion, but other approaches may be preferable for some projects.

- 11.01 Subject to the provisions of Article 4, CMAR guarantees that the maximum amount payable by Owner (Guaranteed Maximum Price, or GMP) for the sum of the amounts for Paragraphs 11.01.A through D that follow will be the binding GMP established by the process stated in Paragraphs 11.02 and 11.03.
- A. Construction Support Cost Amount (Article 5);
  - B. Cost of the Work (Article 6);

- C. CMAR Fee (Article 7); and
  - D. CMAR's Contingency Allowance Amount (Article 8).
- 11.02 The Estimated GMP indicated in Exhibit B Table 1—Estimated Guaranteed Maximum Price is a preliminary figure as of the Effective Date of the Contract. The GMP will be revised as the design is continued and completed.
- 11.03 A binding GMP will be established at any time agreeable to Owner and CMAR, but not later than the following:
- A. If the Work is performed under Work Packages released and authorized concurrently for the complete Project, then the binding GMP will be established on the basis of Contract Documents that are 90% complete.
  - B. If the Work will be authorized over time, as the design for individual Work Packages is completed, in a series of incremental Work Authorizations (fast tracking or similar design/construction process) then the binding GMP will be developed in a series of incremental changes as the design for each Work Package reaches 90% completion, culminating, when all Work Packages have been authorized, in a binding GMP for the Contract.
- 11.04 Owner's Construction Budget
- A. Owner's Advisor will establish an updated Owner's Construction Budget (Budget) based on the CMAR's procurement strategy which identifies Work Packages used to construct the Work. Owner's Advisor, working with CMAR, will update this Budget with actual amounts for each line item as Work Authorization amounts identified in the updated Budget are determined.
  - B. Owner's Advisor will revise the Budget to incorporate Change Orders or authorized allocation of contingency funds which change the funds available for Budget line items. When amounts for all Work Authorizations have been determined and the binding GMP is established for the Contract, the Budget must correlate to GMP line items, and the Budget must equal the GMP.
  - C. CMAR will identify variances between the budgeted amount and actual amounts as Work Authorization amounts are determined.
    - 1. Positive variances are created when actual cost for a Work Authorization is less than the budgeted amount. Positive variances identify unused funds that can be used to offset negative variances.
    - 2. Negative variances are created when actual cost for a Work Authorization is more than the budgeted amount. Negative variances identify where additional funds are needed. Unused funds from positive variances can be used to offset these negative variances.
    - 3. Net variances for the Contract are used to determine the current status of the Owner's Construction Budget.
      - a. A net positive variance for the Contract represents a savings to the Owner. A final Contract Amendment will be issued at the completion of the Contract (Final Payment) to adjust the GMP to the actual amount of Contract costs.

- b. A net negative variance for the Contract represents the amount for which the CMAR is at risk, and no additional compensation will be made to the CMAR.

#### 11.05 Options for Costs Exceeding the Owner's Budget

- A. The Guaranteed Maximum Price resulting from the tabulation of cost for self-performed CMAR Work, bids for Work by Subcontractors and Suppliers, Construction Support Costs, CMAR Contingency Allowances and CMAR Fee cannot exceed the Owner's Construction Budget. The Owner may exercise any of the following options at the sole discretion of the Owner if the proposed Guaranteed Maximum Price exceeds the Owner's Construction Budget:
  - 1. Approve an increase in the Owner's Construction Budget in writing.
  - 2. Authorize rebidding or renegotiation for some or all parts of the Project within a reasonable time without an increase in the Guaranteed Maximum Price.
  - 3. Cooperate in the revision of the scope of the Project to reduce the actual cost of construction to the Owner's Construction Budget.
  - 4. Abandon the Project, in whole or in part, and terminate this Contract in accordance with applicable termination for convenience provisions.
- B. If Owner selects the option described in Paragraph 6.05.A.1, CMAR shall proceed with performance of the Work, and provide CMAR Services as described in these Contract Documents without additional compensation for Procurement Services. Other fees and expenses related to the Cost of Work will be adjusted in accordance with the revised Cost of Work.
- C. If Owner selects the option described in Paragraph 6.05.A.2, Owner and CMAR shall proceed with rebidding or renegotiation of some or all parts of the Project. The OPT will work with CMAR to determine if rebidding or restructuring Work Packages is likely to lead to lower bid prices; if so determined, CMAR will rebid selected original Work Packages or restructured Work Packages identified as having the potential to reduce the overall cost of construction to the Owner's Construction Budget. CMAR will advise the OPT of the likely impact to the schedule resulting from rebidding Work Packages. CMAR will provide CMAR Services for rebidding these Work Packages without additional compensation.
- D. If Owner selects the option described in Paragraph 6.05.A.3, CMAR shall assist the OPT in studies to revise the scope of the Project to bring the Project cost within the Owner's Construction Budget. CMAR will provide research and cost estimates to evaluate the potential cost savings of each proposed change in scope for Work Packages and advise the OPT of the likely impact to the schedule resulting from rebidding Work Packages and changes in Contract Times that will result from the changed Work Packages. CMAR will provide CMAR Services for consultation in modifying the Project scope and rebidding these Work Packages without additional compensation.
- E. CMAR shall revise the project schedule to incorporate delays caused by actions taken to bring the Project within the Owner's Construction Budget.

#### 11.06 Conversion of Cost of Work to a Lump Sum Amount

- A. If Owner and CMAR mutually agree, compensation for all Work on the Project, or for any Work Authorization, may be converted to a lump sum (stipulated amount). If compensation

for all Work on the Project is converted to a lump sum amount, this lump sum amount will include costs for Construction Support Cost, Cost of the Work, the CMAR Fee, and all other costs associated with the Contract, all as if bid as a lump sum amount. CMAR will no longer have access to CMAR Contingency Allowance funds and bears all risk associated with delivering the Work for the lump sum amount.

- B. If a Work Authorization is converted to a lump sum amount, this lump sum amount will include costs for Cost of the Work, the CMAR Fee, and all other costs associated with the Work Authorization, all as if bid as a lump sum amount; provided, however, that Construction Support Costs will continue to be compensated per Paragraph 5.05.
- C. The following will continue to apply for conversions to lump sum covered in Paragraphs B and C:
  - 1. The Cost of the Work provisions in Article 6 will continue to apply to pricing certain Change Orders and other similar matters, as set forth in Paragraph 6.01.A.2.
  - 2. Construction Support Costs Extended Rate provisions of Paragraph 5.04 will continue to apply for Change Orders.
  - 3. Owner's Contingency will continue to be available per Article 12.

#### **ARTICLE 12—OWNER'S CONTINGENCY ALLOWANCE**

##### **12.01 Owner's Contingency Allowance**

- A. Owner's Contingency Allowance is used at the sole discretion of the Owner to cover unforeseen costs, Owner-directed changes in the scope of the Work, or any other unanticipated change in the Contract Price. These funds can only be accessed by the CMAR when and to the specific extent authorized by the Owner.
- B. The Owner's Contingency Allowance is to be included in the Contract Amount awarded but is not part of the CMAR's GMP.

#### **ARTICLE 13—PAYMENT PROCEDURES**

##### **13.01 Submittal and Processing of Payments**

- A. Billing and payment for CMAR Services are addressed in Article 3. The provisions in this Article 13 pertain to billing and payment for the Work.
- B. CMAR shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will indicate the amount of the CMAR Fee then payable. Applications for Payment will be processed by Owner's Advisor as provided in the General Conditions.

##### **13.02 Progress Payments; Retainage**

- A. Owner shall make progress payments on the basis of CMAR's Applications for Payment as recommended by Owner's Advisor on or about the **[ordinal number, such as 5th]** day of each month during construction as provided in Article 13, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract.

- B. Progress payments on account of the Cost of the Work will be made for each Work Authorization.

**Guidance Notes—Retainage**

1. EJCDC contemplates that progress payments will be made for each Work Authorization, allowing early Work Authorizations to be paid in full, including full release of retainage, or nearly in full, while other later Work Authorizations are still in progress. If instead progress payments and retainage will be made based on the progress of the Work as a whole, then delete the words “For each Work Authorization” or “under a Work Authorization” above and in the text below.
2. In Paragraph 13.02.B.1.a, the percentage stated should be that percentage to be paid to CMAR. Thus, if retainage is 10%, indicate “90” in Paragraph 13.02.B.1.a.
3. Paragraph 13.02.B.1.a(1) provides that after the Work is 50% complete, based on value of Work completed, Owner will no longer take retainage from progress payments if performance of the Work has been satisfactory. This practice rewards and incentivizes good work and compliance with the schedule. If Owner is not able or willing to offer this incentive, delete Paragraph 13.02.B.1.a(1).
4. Although Paragraph 13.02.B.1.a(1), if used, provides for retainage to be reduced after 50% of the Work is complete, the standard provisions in Paragraph 13.02 do not provide for an early return of retainage—CMAR’s first opportunity to receive retained funds occurs at Substantial Completion (see Paragraph 13.02.B.2). If a specific project involves partial utilization of a portion of the Work or other special factors, the user may wish to include a supplemental provision that allows for a partial early return of retainage, under specified conditions.
5. As an alternative to retainage, some Owners allow the CMAR to receive 100% of each progress payment, provided that the CMAR has provided an irrevocable letter of credit or similar instrument that provides the Owner with collateral under prescribed conditions. Any such alternative mechanism requires custom drafting and participation of legal counsel.

1. Prior to Substantial Completion, for each Work Authorization progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.
  - a. **[number]** percent of the value of the Work completed, with the balance being retainage.
    - 1) If 50 percent or more of the Work under a Work Authorization has been completed, as determined by Owner’s Advisor, and if the character and progress of the Work have been satisfactory to Owner, Owner’s Advisor, and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner, Owner’s Advisor, and Engineer, there will be no additional retainage; and
  - b. **[number]** percent of cost of materials and equipment not incorporated in the Work, with the balance being retainage.

**Notes to User**—Typical values used in Paragraph 13.02.B.2 are in the range of 95 to 100 percent and 200 percent respectively, subject to Laws and Regulations specific to the Project.

2. Upon completion of the Work under a Work Authorization, including completion of all punch list items, Owner shall pay an amount sufficient to increase total payments to CMAR to **[number]** percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **[number]** percent of Owner's Advisor's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

#### 13.03 Final Payment

- A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Article 15 of the General Conditions.

#### 13.04 Consent of Surety

- A. Owner will not make final payment or return or release retainage at Substantial Completion or any other time, unless CMAR submits written consent of the surety to such payment, return, or release.

#### 13.05 Interest

- A. All amounts not paid when due will bear interest at the rate of **[number]** percent per annum.

### ARTICLE 14—DOCUMENTATION AND AUDIT

#### 14.01 Documentation

- A. Whenever the Cost of the Work for any purpose is to be determined pursuant to this Contract, CMAR and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices.
- B. CMAR will provide documentation of all Costs of the Work with the Application for Payment as directed by the Owner's Advisor.

#### 14.02 Audit

- A. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all CMAR's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and the CMAR Fee. CMAR shall preserve all such documents for a period of three years after the final payment by Owner. Subcontractors performing Work on a Cost of the Work basis will afford such access to Owner, and preserve such documents, to the same extent required of CMAR.

### ARTICLE 15—CONTRACT TIMES

#### **Guidance Notes**—Contract Times

1. On the typical CMAR project, at the time the CMAR is selected, and the Owner and CMAR enter into this Agreement, the Project has not yet been designed, and a master schedule for completion has

not yet been prepared. Under those circumstances setting a contractually binding construction completion date would be speculative at best and in most cases counterproductive. Forcing a specific project schedule at the time the Agreement is to be signed can increase construction costs for acceleration (artificially forced early completion of the Work, rather than developing and following a schedule that be most beneficial for construction). EJCDC recommends that in the typical situation the parties should use a Contract Amendment to establish specific binding Contract Times; or the terms of a Work Authorization or a Change Order with respect to completion times for specified portions of the Work. The provisions in this Article, and in Article 4 of the General Conditions, would apply to such Contract Times. To follow this recommendation, select either Paragraph 15.01.B or 15.02.B, following the instructions in the Notes to Users.

2. Specific, binding Contract Times should be established in this Agreement if the Owner has a specific date in which the Work must be substantially complete, or if there are specific Milestones that CMAR must meet to accomplish the Owner's goals.
  - a. In some cases, it may be necessary for the Owner to specify dates for substantial and final completion, such as to meet a regulatory requirement or similar operations date, and the terms of this Agreement should expressly obligate CMAR to meet those dates. To establish specific completion dates at the outset of the Contract, select either Paragraph 15.01.A or Paragraph 15.02.A, following the instructions in the Notes to Users.
  - b. In some instances, it may be important that a specific portion of the Work be complete and operational before the entire scope of Work is complete. In this case, a separate Work Package and related Work Authorization should be used for this essential portion of the Work and the Work Authorization should specify a Milestone, with damages for late attainment. In some instances, it may be logical to complete other Work associated with the Work Package at the same time, so only a portion of the Work Package may be considered as a Milestone. Provisions for Partial Utilization in accordance with the General Conditions (CMAR-700 Paragraph 15.05) should be applied (transfer of utilities, insurance and start of warranties etc.), if the Work Package, or a portion thereof, it to be accepted for early operation. See CMAR-545, Work Authorization—Construction Manager at Risk Series (2023).

#### **Notes to User**

1. Select one of the two Contract Times paragraphs (either Paragraph 15.01 or Paragraph 15.02) and delete the other. The first option, Paragraph 15.01, uses dates for the time of completion; Paragraph 15.02 uses number of days. (References in these Notes will be to paragraph numbers as published—the final numbering will change as paragraphs, such as either Paragraph 15.01 or Paragraph 15.02, are deleted during the finalization process.)
2. If binding dates for Substantial Completion and final completion can or should be set at the outset of this Owner-CMAR Contract, then use either Paragraph 15.01.A or Paragraph 15.02.A. In the more typical case in which setting such dates will occur later, use either Paragraph 15.01.B or Paragraph 15.02.B. Delete the paragraph that is not used.
3. Paragraph 15.05, which establishes binding intermediate Milestones, may be used with either Paragraph 15.01 or Paragraph 15.02; or Paragraph 15.05 may be deleted if the Contract does not impose Milestone requirements.

### 15.01 Contract Times—Dates

- A. The Work will be substantially complete on or before **[date]**, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **[date]**.
- B. The dates by which the Work will be substantially complete, and by which the Work will be completed and ready for final payment, will be set out in a Contract Amendment and comply with provisions of Article 15.

### 15.02 Contract Times—Days

- A. The Work will be substantially complete within **[number]** days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **[number]** days after the date when the Contract Times commence to run.
- B. The number of days in which the Work will be substantially complete, and in which the Work will be completed and ready for final payment, will be set out in a Contract Amendment and comply with provisions of Article 15. Completion dates for specified portions of the Work, if applicable, may be set out in Work Authorizations or Change Orders.

#### Guidance Notes—Liquidated Damages

1. Liquidated damages are commonly used to address unexcused late completion of the Work. Delete Paragraph 15.03, Liquidated Damages, if such damages will not be established in the specific Contract.
2. At Substantial Completion, the Owner is able to use the Work for its intended purpose, by definition; see General Conditions, Paragraph 1.01.A.52. Achieving Substantial Completion is typically a critical deadline, and the associated damages for missing this deadline may be significant. Paragraph 15.03.A.1 is the location for stating a liquidated amount for such damages, usually on a per-day basis.
3. The subsequent failure to complete the punch list tasks and bring the Work to a complete close by the final completion date may also result in some degree of damages to Owner—though typically these damages are significantly less than the daily damages for not achieving Substantial Completion on time. Some users may choose to establish liquidated damages only for the failure to achieve Substantial Completion. If that is the case, delete Paragraph 15.03.A.2 below.
4. If failure to achieve a Milestone on time is of such consequence that the assessment of liquidated damages is warranted for the failure to reach the Milestone on time, then retain and complete paragraph; if not, delete it. Add additional similar paragraphs for any additional Milestones subject to a liquidated damages assessment. Liquidated damages for Milestones might, in some cases, be additive to liquidated damages for failing to timely attain Substantial Completion; if so Paragraphs 15.03.A.3 and 15.03.A.4 should be revised accordingly.

### 15.03 Liquidated Damages

- A. CMAR and Owner recognize that all time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of

the essence of the Contract and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and CMAR agree that as liquidated damages for delay, but not as a penalty:

1. Substantial Completion—CMAR shall pay Owner \$[number] for each day that expires after the time, as duly adjusted pursuant to the Contract, specified above for Substantial Completion, until the Work is substantially complete.
2. Completion of Remaining Work—After Substantial Completion, if CMAR shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, as duly adjusted pursuant to the Contract, for completion and readiness for final payment, CMAR shall pay Owner \$[number] for each day that expires after such time until the Work is completed and ready for final payment.
3. Milestones CMAR shall pay Owner the amount specified in Paragraph 15.05 for each day that expires after the time, as duly adjusted pursuant to the Contract, specified for achievement of each Milestone, until that Milestone is achieved.
4. If Owner recovers liquidated damages for a delay in completion of the Project or a specified Milestone by CMAR, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages, if any, specified in this Agreement.

**Guidance Notes**—If early completion would be a benefit to Owner, then consider including the bonus clause below as Paragraph 15.03.B. The daily bonus for early completion need not be exactly the same as the daily post-Substantial Completion liquidated damages amounts, but presumably the two amounts will be reasonably compatible. If no bonus will be offered, then delete Paragraph 15.03.B.

- B. Bonus: CMAR and Owner further recognize the Owner will realize financial and other benefits if the Work is completed prior to the time specified for Substantial Completion. Accordingly, Owner and CMAR agree that as a bonus for early completion, Owner shall pay CMAR \$[number] for each day prior to the time specified above for Substantial Completion, as duly adjusted pursuant to the Contract, that the Work is substantially complete. The maximum value of the bonus will be limited to \$[number].

**Guidance Notes**—Special Damages

1. If liquidated damages are used to address late completion by CMAR, EJCDC recommends developing daily liquidated damages amounts that comprehensively account for the full range of Owner's damages, including but not limited to loss of beneficial use; extended financing expenses; costs of additional construction management, engineering, construction observation, inspection, and administrative services; and potential fines or penalties. This comprehensive approach is well established and generally enforceable. If the recommended and conventional path is followed, and a comprehensive daily liquidated damages amount has been established in Paragraph 15.03 above, then delete the clause that follows, Paragraph 15.04, Special Damages, and rely solely on

Paragraph 15.03, Liquidated Damages, to cover the full scope of damage done by late CMAR completion.

2. Some Owners prefer to charge a contractor (in this Contract, the CMAR) that has not completed the Work on schedule for Owner's additional hard-dollar costs in specified categories, such as regulatory fines and penalties, or extended construction management, engineering, construction observation, inspection, and administrative services; these charges (referred to here as "special damages") are levied on top of the daily liquidated damages amount. Those users that choose the "liquidated damages plus specified actual hard dollar costs" (special damages) approach may use the following Paragraph 15.04, Special Damages, revised as needed to reflect the intended scope of the special damages, together with the liquidated damages provisions in Paragraph 15.03, Liquidated Damages, above. It is very important if this approach is followed to be certain that the liquidated damages amount does not already include or rely in part on the potential for incurring these very same special damages costs.

#### 15.04 Special Damages

- A. CMAR shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of CMAR's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for construction management, engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 15.02 for Substantial Completion, as duly adjusted pursuant to the Contract, until the Work is substantially complete.
- B. After CMAR achieves Substantial Completion, if CMAR shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, CMAR shall reimburse Owner for the actual costs reasonably incurred by Owner for construction management, engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 15.02 for Work to be completed and ready for final payment, as duly adjusted pursuant to the Contract, until the Work is completed and ready for final payment.
- C. The special damages imposed in this Paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.

#### Guidance Notes

1. For each Milestone, describe the milestone and the requirements that must be met before the Milestone will be considered substantially complete. Specify the date or number of days from the Effective Date of Work Authorization by which the Milestone must be substantially complete. Specify the amount of any associated damages.
2. Special damages may be used in lieu of the liquidated damages provisions presented in the following text if a one-time definable cost, such as a fine or penalty will be incurred. Modify the language below if special damages are to be used.
3. In Paragraph 15.05, use a specific date for attainment of the Milestone if Paragraph 15.01 above (Contract Times–Dates) has been selected; use the number of days from commencement of Contract Times for the Milestone if Paragraph 15.02 (Contract Times–Days) has been selected.
4. If the Contract does not include Milestones, delete Paragraph 15.05.

#### 15.05 Milestones and Associated Damages

- A. Work required to be complete to meet the following Milestone(s) will be included in a separate Work Authorization.
- B. Milestone 1 – **[Describe the Milestone in General Terms. This description may be included in a Work Authorization as the Project and associated Work Package are developed as the design progresses].**
  - 1. This Milestone must be substantially completed on or before **[Date] [{Number of Days} from the effective date of this Work Authorization].**
  - 2. The Milestone will be considered substantially complete when the following requirements have been met:
    - a. **[Describe the work that must be completed or describe work that can remain unfinished for the Work Authorization Milestone to be considered substantially complete].**
  - 3. CMAR shall pay Owner \$**[number]** for each day that expires after the time, as duly adjusted pursuant to the Contract, specified above for Substantial Completion of this Work Authorization, until the Work is substantially complete.
- C. Milestone 2 – **[Describe the Milestone in General Terms. This description may be included in a Work Authorization as the Project and associated Work Package are developed as the design progresses].**
  - 1. This Milestone must be substantially completed on or before **[Date] [{Number of Days} from the effective date of this Work Authorization].**
  - 2. The Milestone will be considered substantially complete when the following requirements have been met:
    - a. **[Describe the work that must be completed or describe work that can remain unfinished for the Work Authorization Milestone to be considered substantially complete].**
  - 3. CMAR shall pay Owner \$**[number]** for each day that expires after the time, as duly adjusted pursuant to the Contract, specified above for Substantial Completion of this Work Authorization, until the Work is substantially complete.

### ARTICLE 16—CONTRACT DOCUMENTS

#### 16.01 Contents

- A. The Contract Documents consist of all of the following:

**Notes to User**—If any of the items listed below are not to be included as Contract Documents, remove such item from the list and renumber the remaining items.

- 1. This Agreement.
- 2. General Conditions.
- 3. Supplementary Conditions.

4. General Requirements (Division 01 of the Specifications.)
5. Drawings and Specifications completed as of the Effective Date of the Contract: **[itemize or incorporate list]**.

**Guidance Notes**—Exhibits that are Contract Documents

1. Supplement the following paragraph (16.01.A.6) by listing any additional exhibits, if any, to the Agreement that merit the status of Contract Documents. Exhibits qualifying as Contract Documents might include, for example, required documentation submitted by CMAR prior to Notice of Award, or documents required by funding or lending agencies.
2. As noted in the introduction to this Agreement, in the typical case, Proposal-related documents such as the Request for Qualifications and the Proposal are not included as Contract Documents.

6. Exhibits to this Agreement (enumerated as follows):
  - a. Exhibit A, Scope of CMAR's Services;
  - b. Exhibit B, Basis of Compensation; and
  - c. **[List other exhibits, if any]**.
7. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
  - a. Contract Amendments;
  - b. Executed Work Authorizations, including any exhibits identified as Drawings, Specifications, or other Contract Documents;
  - c. Work Authorization Modifications;
    - 1) Work Change Directives;
    - 2) Change Orders; and
    - 3) Field Orders.
  - d. Performance and Payment Bonds; and
  - e. Warranty Bonds, if any.
- B. There are no Contract Documents other than those listed above in this Article 16.
- C. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

## ARTICLE 17—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

### 17.01 CMAR's Representations

**Notes to User**—Modify the following representations to suit the specific Project. For example: change or delete Paragraph 17.01.A.2 if CMAR was restricted from visiting the Site prior to entering into the Contract; change or delete Paragraph 17.01.A.4 and 5 if there are no referenced reports or drawings.

- A. To induce Owner to enter into this Contract, CMAR makes the following representations:
1. CMAR has examined and carefully studied the Contract Documents, including Addenda.
  2. CMAR has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  3. CMAR is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
  4. CMAR has carefully studied the reports, if any, of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings, if any, of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
  5. CMAR has carefully studied the reports and drawings, if any, relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
  6. CMAR has considered the information known to CMAR itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract **[Proposal]** Documents; with respect to the effect of such information, observations, on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by CMAR; and (c) CMAR's safety precautions and programs.
  7. Based on the information and observations referred to in the preceding paragraph, CMAR agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Guaranteed Maximum Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
  8. CMAR is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
  9. CMAR has given Owner's Advisor written notice of all conflicts, errors, ambiguities, or discrepancies that CMAR has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Owner's Advisor is acceptable to CMAR.

10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. CMAR's entry into this Contract constitutes an incontrovertible representation by CMAR that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

#### 17.02 CMAR's Certifications

- A. CMAR certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 17.02:
  1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the proposal process or in the Contract execution;
  2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the Proposal process or the execution of the Contract to the detriment of Owner, (b) to establish proposal Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  3. "collusive practice" means a scheme or arrangement between two or more Proposers, with or without the knowledge of Owner, a purpose of which is to establish proposal prices at artificial, non-competitive levels; and
  4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the proposal process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and CMAR have signed this Agreement.

This Agreement will be effective on **[indicate date on which Contract becomes effective]**, which is the Effective Date of the Contract.

Owner:

CMAR:

\_\_\_\_\_  
*(typed or printed name of organization)*

\_\_\_\_\_  
*(typed or printed name of organization)*

By: \_\_\_\_\_  
*(individual's signature)*

By: \_\_\_\_\_  
*(individual's signature)*

Date: \_\_\_\_\_  
*(date signed)*

Date: \_\_\_\_\_  
*(date signed)*

Name: \_\_\_\_\_  
*(typed or printed)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

*(If [Type of Entity] is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest: \_\_\_\_\_  
*(individual's signature)*

Attest: \_\_\_\_\_  
*(individual's signature)*

Title: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Address for giving notices:

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Designated Representative:

Designated Representative:

Name: \_\_\_\_\_  
*(typed or printed)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Address:

Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Email: \_\_\_\_\_

*(If [Type of Entity] is a corporation, attach evidence of authority to sign. If [Type of Entity] is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)*

License No.: \_\_\_\_\_  
*(where applicable)*

State: \_\_\_\_\_

## EXHIBIT A—SCOPE OF CMAR SERVICES

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**Guidance Notes**—Services are classified as Basic Services, Additional Services, and Special Services.

1. Those services currently shown as Basic Services are those that might apply to any “normal” project. Depending on the size and complexity of the Project, services may be moved from Basic to Additional or from Additional to Basic as presented in this Exhibit to meet the needs of the project. As an example, Value Engineering studies, which are more commonly used for larger, more complex projects, is currently listed as an Additional Service. Value Engineering studies can be moved to Article 1 as a Basic Service if it is known when the Agreement is signed that these services will be provided.
2. Pricing can be obtained for selected Additional Services if the scope of these services can be defined at the time the Agreement is signed. If the scope of an Additional Service cannot be well defined at the time the Agreement is signed, it may be better to determine the compensation for these services when the scope for these services can be better defined. These services can be added as Special Services after the Agreement has been signed. The Owner may choose to establish an Owner’s contingency allowance for Special Services so money for these services will be included in the cost for CMAR Services.

### ARTICLE 1—BASIC PRECONSTRUCTION SERVICES

#### 1.01 Project Management

##### A. Participate in Project Meetings

1. Participate in Project kick-off meeting. Be prepared to discuss CMAR’s team and organizations structure, assignments for responsibilities and Teams CMAR’s plan for implementation of Preconstruction Services.
2. Participate in periodic meetings with Owner, Owner’s Advisor, and Engineer (collectively, Owner’s Project Team or OPT) to review progress, coordinate efforts, and discuss planned activities for the next period. It is anticipated that these progress meetings will occur **[monthly]**.

##### B. Provide administration of Agreement for CMAR Preconstruction Services, including Applications for Payment, progress reporting, management of CMAR staff, schedule for services, and deliverables.

#### 1.02 Review of Preliminary Design Report

##### A. As a priority first task, review Engineer’s Preliminary Design Report as soon as it is available.

1. Provide input and advice, according to the general requirements of Exhibit A Paragraph 1.03.D below, regarding the Preliminary Design Report’s content concerning coordination of utilities work (both above-ground utilities and Underground Facilities), Underground Facilities Procedure, and mitigation of utilities conflicts, for Engineer’s use in the Final Design Phase of Engineer’s services.
2. Recommend strategies for the division of the Work under design into Work Packages, and for phased design and authorization of construction of such Work Packages (fast tracking). Work collaboratively with the OPT to finalize the number of Work Packages

and their approximate scope, and the schedule for preparation, authorization, and completion of such Work Packages.

### 1.03 Design-Related Preconstruction Services

- A. Attend periodic design meetings to provide consultation on aspects of the design that will impact the budget, schedule, and quality of the completed Work.
- B. Advise, assist, and provide recommendations on all aspects of the planning and design of the Work. Consult with the OPT regarding Site use and improvements, and the selection of materials, building systems, and equipment.
- C. Provide recommendations: on construction feasibility; regarding actions designed to minimize adverse effects of labor or material shortages; on time requirements for procurement, installation, and construction completion; and on factors related to construction cost including estimates of alternative designs or materials, preliminary budgets, and possible opportunities for savings.
- D. Review in-progress design documents, including the documents variously described as preliminary design documents, preliminary design report, design development documents, and the interim final drafts of the Drawings and Specifications, and provide input and advice on constructability, materials and equipment selections, and availability. Provide timely suggestions for modifications to improve:
  - 1. Ability to bid the Work:
    - a. Identify Work elements that may be difficult to price as presented in the design documents. Provide suggestions to reduce risk and to obtain better pricing from Subcontractors and Suppliers.
    - b. Provide suggestions on Work Packages to improve biddability, however, Engineer will not subdivide work into Work Packages for specific trades.
    - c. Determine that specified products are readily available and notify Engineer if equal or substitute materials might be available.
  - 2. Constructability, including sequencing or coordination issues:
    - a. Adequacy of details for construction;
    - b. Potential conflicts during construction;
    - c. Feasibility of construction;
    - d. Construction sequencing;
    - e. Ability to coordinate among Subcontractors and Suppliers; and
    - f. Coordination between Contract Documents.
  - 3. Operability:
    - a. Ability to minimize disruptions to existing operations;
    - b. Ability to complete construction connections to existing facilities or utilities;
    - c. Modifications to facilitate initial start-up and/or performance testing; and

- d. Ability of Owner to operate/maintain the facility when completed.
      - 4. Possible use of patented, licensed, or copyrighted products.
      - 5. Requirements for Subcontractor and equipment and materials procurement.
      - 6. Completeness, consistency, and clarity.
    - E. Subsurface conditions and Underground Facilities
      - 1. Review information made available by Owner.
        - a. Review information pertaining to subsurface or physical conditions at the Site. Inform Owner's Advisor of additional examinations, investigations, explorations, testing, or studies (Supplemental Investigations) of subsurface or physical conditions at the Site that CMAR concludes would be beneficial if conducted prior to commencement of construction. See General Conditions Paragraph 5.03.E.
        - b. Review information pertaining to Underground Facilities. Collaborate with the Engineer to improve the accuracy and completeness of information regarding Underground Facilities that Engineer incorporates into Work Authorizations in accordance with General Conditions Paragraph 5.05.
      - 2. Owner's Advisor will issue a Work Authorization for any necessary potholing, exploratory excavations, or other field investigations related to Paragraph E if necessary.
    - F. Research potential substitutes, furnish data and prepare a Preconstruction Substitute Request prior to a Work Authorization requesting the Owner's Advisor to authorize the use of other items of equipment or material in accordance with General Conditions Paragraph 7.09.
    - G. Provide review comments in writing using the processes or procedures prescribed by the Owner's Advisor. Verify that the Project design can be executed within the Owner's Construction Budget, within the allotted Contract Times, and with available labor, equipment, and materials.
    - H. Report to Owner's Advisor and Engineer any elements of the design that appear to be in error or appear to require engineering review and possible resulting modification.
    - I. The CMAR is not responsible for design of the Project. The CMAR does not control the project design or contents of the Contract Documents and does not assume responsibility or liability for the project design by performing these reviews. The CMAR's review of the project design and Contract Documents and providing recommendations are only advisory to the OPT.
- 1.04 Construction Management Plan and Implementation
  - A. Provide and implement a written Construction Management Plan that incorporates the following elements:
    - 1. CMAR's organization for the Construction Phase of the project, including assigned responsibilities and level of authority within Project management;
    - 2. Communication plan, including plans for distribution of documents, implementation of Action Item and Decision registers, frequency of reporting and project controls;

3. Document management plan that incorporates Communications Plan and contractual Electronic Data Protocols;
  4. Construction contract administration;
  5. Cost management;
  6. Time management;
  7. Quality management;
  8. Risk management;
  9. Safety management;
  10. Site management and environmental controls;
  11. Regulatory requirements and permits;
  12. Procurement Strategy Plan. [**; and**]
  13. [**Diverse Business Program Implementation;**]
  14. [**Start up and commissioning program.**]
- B. Work with the OPT to incorporate requirements of the General Conditions and General Requirements (Division 01 of the Specifications) into the plan. Reference provisions in the General Conditions and General Requirements as appropriate. Prepare a draft plan and submit for review and comment by the OPT. Respond to comments and incorporate changes suggested by review comments as appropriate.
- 1.05 Construction Contract Administration
- A. Work with the OPT to incorporate requirements of the General Conditions and General Requirements into administration of the Contract. Review the Owner's Construction Management Plan and suggest changes as appropriate.
- B. Communications
1. Assist the Owner's Advisor with planning Project meetings, participate in these meetings and provide documentation as requested by the Owner's Advisor.
  2. Plan, schedule, and document meetings held with Subcontractors and Suppliers. Include the members of the OPT as appropriate.
- 1.06 Cost Management
- A. Provide a preliminary evaluation of the Owner's program and budget requirements to determine that CMAR will be able to construct the facilities described in that program within the Owner's Construction Budget (Budget) using conceptual estimating techniques. Discuss this initial review of the Budget with the OPT.
- B. Work with OA to update the Budget with supporting data for review by the OPT at the following intervals:
1. Completion of preliminary design documents by the Engineer and approval by the Owner.

2. Completion of design development documents by the Engineer and approval by the Owner.
  3. At appropriate intervals agreed to by the OPT and CMAR during the preparation of the Construction Documents to determine that changes to the design can be constructed within the Budget.
- C. Assist OA in preparing an updated line-item Budget based on the CMAR's proposed Procurement Strategy Plan prepared per Paragraph 1.13. This Budget is to include a line item for each anticipated Work Package, as well as line items for Construction Support Costs, the CMAR Fee, and CMAR Contingency Allowances and other costs, if any, that will be incorporated into the GMP for the Project.
  - D. Assess current construction market to determine risk associated with the Budget. As an example, volatility in the cost of selected materials or equipment may drive cost above the Budget. Identify areas where costs may be lower than original estimates and if cost savings may be used to balance the Budget. Report the cost of various design and construction alternatives to the Owner, including the CMAR's assumptions in preparing its analysis, a variance analysis between budget and preliminary Budgets, and recommendations for any adjustments to the Budget. Work with the OPT to consider costs relating to efficiency, usable life, maintenance, energy, and operation as part of the cost analysis.
  - E. Notify the Owner and the Owner's Advisor immediately if any estimated construction cost will cause the projected GMP to exceed the Budget. Make appropriate recommendations to the OPT if cost projections exceed the Budget.
  - F. Provide the Budget-related services set out in Paragraph 11.04 of the Agreement.

#### 1.07 Time Management

- A. Provide a preliminary master schedule for the Contract. Incorporate the Owner's Advisor's preliminary schedule and the schedule for design into the preliminary master schedule. Include allowances for reasonable periods required for the review and approval of items by the OPT and for approvals of governmental authorities having jurisdiction over the Project. Prepare the preliminary master schedule in a way that the detailed construction schedule can be incorporated into the master schedule as the Project becomes better defined.
- B. Identify critical design Milestones that must be met to keep the Project on schedule. Coordinate and integrate the preliminary project schedule with the services and activities of the OPT and CMAR. Update the preliminary project schedule as design develops to indicate proposed activity sequences and durations, Milestone dates for receipt and approval of pertinent information, submittal of a GMP Proposal, preparation and processing of Shop Drawings and Samples, delivery of materials or equipment requiring long-lead time procurement, and the Owner's occupancy requirements.
- C. Make appropriate recommendations to the Owner and Owner's Advisor if preliminary project schedule updates indicate that previously approved schedules may not meet Contract Time requirements.
- D. Revise the master schedule after the GMP is established.

## 1.08 Quality Management

- A. Prepare CMAR's Quality Control Plan (CQCP) in accordance with the General Requirements.
  - 1. Describe the quality control organization and lines of authority. Quality control plan is to identify the quality control manager and other key individuals involved in CMAR's quality control effort. Provide the services of a dedicated quality control manager unless Owner's Advisor determines that quality control manager may combine quality control duties with other responsibilities. If quality control manager is to serve in other capacities, identify those other responsibilities and the percentage of time spent in each role. Describe the qualifications of the quality control manager (in resume format) to demonstrate experience with quality management activities and performance on successful projects.
  - 2. Provide the name and qualifications, in resume format, of other persons assigned a quality control function. Define the roles and responsibilities and authorities for each person and the types of Work or portions of the work for which each person is responsible.
  - 3. Describe CMAR's approach to managing quality during construction. Describe how CMAR will integrate quality control procedures into the execution of the Work, provide testing and inspection required to control the quality of the Work in progress and verification or acceptance testing as required by the Contract Documents and CQCP.
  - 4. Include a testing plan with details of tests to be provided. Designate the organization (Owner, Owner's Advisor, CMAR, or Testing Agency) responsible for each type of testing. Coordinate CQCP Testing Plan with testing to be provided by the Owner.
  - 5. Describe CMAR approach for managing defective Work, including notification and documentation procedures, development and implementation of corrective action plans and documentation that record corrective action has been successful in producing Work that complies with the Contract Documents.
  - 6. Describe the approach for scheduling, reviewing, certifying, and managing documentation provided by Subcontractors and Suppliers. Include the approach for managing the quality of submittals, documentation procedures, and process for tracking and keeping documentation up to date.

## 1.09 Risk Management

- A. Analyze construction risks to assess risk impact and develop appropriate risk management strategies to minimize associated costs.
- B. Identify additional information that will help with risk assessment.
- C. Provide recommendations for appropriate allocation of construction risks.
- D. Review possible impacts associated with the use of patented, licensed, or copyrighted products.
- E. Review legal requirements for subcontractor and equipment procurement for risk impacts.
- F. Suggest procurement strategies to minimize risk.

## 1.10 Safety Management

- A. Provide a project-specific Health and Safety Plan for the Contract to address the safety concerns associated with construction activities, including potential hazards, that complies with applicable Laws and Regulations. Write the manual with the ability to readily update the plan to incorporate needed revisions on a regular basis.
- B. The Health and Safety Plan is to include at least the following information:
  - 1. Background information identifying the CMAR, Project description, and location;
  - 2. Management accountability structure with authority to implement safety plans, stop work, or make other safety-related decisions;
  - 3. Role of safety representative (see General Conditions, Paragraph 7.16);
  - 4. Provide descriptions of qualifications and certifications related to the performance of safety representatives;
  - 5. Objectives of the Health and Safety Plan;
  - 6. Administration and enforcement of the Health and Safety Plan;
  - 7. Applicability of the Health and Safety Plan to various personnel categories, including the workforce, visitors, and members of the OPT;
  - 8. List of conditions at the Site that may pose a hazard to anyone, hazard types, and those potentially exposed;
  - 9. Procedures for first aid and medical attention;
  - 10. Emergency notifications procedures based on hazard type which specify the entity to be notified for each situation;
  - 11. Site access control requirements to prohibit unauthorized persons from entering the Site;
  - 12. Orientation and training requirements for workers, visitors, and members of the OPT;
  - 13. Hazard communications and awareness plan;
  - 14. Required safety certifications for each type of work;
  - 15. CMAR's safety training program and effort to create and maintain a culture of safety;
  - 16. CMAR's written safety guidelines for project-specific issues as defined by Laws and Regulations;
  - 17. Plan for conducting safety inspection and the audit frequency and schedule;
  - 18. Process for conducting a Job Hazard Analysis for work activities and implementing countermeasures to ensure safety, including checklist specific the Project and type of work; and
  - 19. Accident / incident reporting procedures including monthly reporting.
- C. Incorporate Owner's site safety requirements as appropriate.

### 1.11 Site Management and Environmental Controls

- A. Develop a plan for managing the Site during construction. The plan should address, at a minimum, management of the following:
  - 1. Office space for CMAR, Subcontractors and if required by Contract, the OPT;
  - 2. Water, sanitation, electrical, internet, and other utilities for CMAR's and OPT's operations at the Site;
  - 3. Storage facilities, parking, and construction equipment storage and maintenance;
  - 4. Protection of existing structures, trees and other landscaping, buildings, utilities, and Underground Facilities;
  - 5. Site security, site safety, and emergency responses;
  - 6. Temporary roads, temporary signage, barricades, fencing, and other devices to manage traffic to and within the Site, including provisions for delivery of materials and equipment, and maintenance during construction;
  - 7. Environmental conditions including storm water management, pollution control, care of water, soil management, and other temporary controls and their removal when no longer required;
  - 8. Reference data and control points; and
  - 9. Cleaning during construction and containment and disposal of waste materials.
- B. Review plan with Owner's Advisor and Owner to identify potential conflicts with operating other facilities, on-going and anticipated construction by other entities. Revise if necessary.

### 1.12 Regulatory Requirements and Permits

- A. Review regulatory requirements and permits required for construction. Develop a written plan for meeting applicable Laws and Regulations and obtaining permits. List the permit requirements, entities responsible for obtaining permits, documentation required for permits and cost for obtaining and complying with these requirements.
- B. Incorporate the associated cost into the Cost of Work and inform the Owner so these can be incorporated into the Owner's Construction Budget, or the Owner's Construction Budget may be adjusted as required.
- C. Incorporate time for obtaining permits into the project schedule to ensure permits can be obtained and regulatory requirements met in time for the orderly progression of Work.

### 1.13 Procurement Strategy Plan

- A. Provide input to OPT regarding the current construction market, bidding climate, status of key Subcontractor and Supplier markets, and other local economic conditions.
- B. As the design develops, organize the Work into Work Packages that will (1) allow for phased construction that will shorten the overall completion schedule for the Work, (2) encourage price competition by prospective Subcontractors and Suppliers, and (3) enhance the quality and safety of the Work.

- C. Develop Subcontractor and Supplier interest in the Project consistent with state Laws and Regulations. Furnish the Owner's Advisor a list of possible Subcontractors and Suppliers, from whom competitive bids will be requested for each principal portion of the Work. Identify preferred providers based on CMAR's previous experience for quality of work, on-time delivery, and ability to complete work within bid amounts. Submission of this list is for information and discussion purposes only and not for prequalification. The review of this list will not require the OPT to investigate the qualifications of proposed Subcontractors and Suppliers, nor does it waive the right of Owner to later object to or reject any proposed Subcontractor or Supplier when bids are considered. CMAR may submit a Change Proposal for any increase in the Guaranteed Maximum Price if this change is made after the GMP has been established.
- D. Recommend to the OPT a schedule for procurement of long-lead time items required to meet the project schedule. Assist the OPT with the procurement of these long-lead items by obtaining competitive bids for these items under a separate Work Authorization.
- E. Identify critical elements of the Work that may require special procurement processes, such as prequalification of Subcontractors or Suppliers, requirement of certified or prequalified installers, or alternative contracting methods.
- F. Advise the Owner of market conditions, bid issues, design issues, or other factors which may have had an impact causing bid prices to be higher than estimated. Discuss opportunities for bringing the Project within budget with the Owner and the Owner's Advisor, in consultation with the Engineer to assist with deciding on how to proceed.

## ARTICLE 2—ADDITIONAL PRECONSTRUCTION SERVICES

### 2.01 Diverse Business Enterprise (DBE) Program Implementation

- A. Identify potential contracting opportunities for DBE Subcontractors and Suppliers to meet Project DBE participation goals.
- B. Identify materials and equipment for which no opportunity for DBE participation exists to assist the Owner in developing realistic DBE participation goals based on available opportunities.
- C. Determine the eligible contract costs associated with each proposed Work Package.

**Guidance Notes**—Owners may recognize that a standard DBE participation goal may not be achievable if a high percentage of the Project cost is comprised of costs for materials or equipment that is not available through DBE organizations except as a “pass through” or brokered sale. The opportunities for DBE participation may also be limited if the work is specialized to the point where DBE firms may not be available. In these situations, the CMAR should work with the Owner to develop achievable goals during the Preconstruction phase. Owners will sometimes set fixed goals, recognizing that achieving these goals may not be practical for all projects. Paragraphs D and E address each situation.

**Notes to User**—Use Paragraph D if Owner will set DBE goals for the Project based on CMAR's recommendations. Use Paragraph E if Owner has set DBE participation goals that may or may not be achievable for the Project. Delete the paragraph not used.

- D. Propose realistic DBE participation goals for the Project, expressed as a percentage of eligible contract costs, considering the specific subcontracting opportunities identified and the availability of DBE participants for each specific subcontracting opportunity.
- E. Determine if Owner's DBE participation goals for the Project, expressed as a percentage of eligible contract costs, is achievable when considering the specific subcontracting opportunities identified and the availability of DBE participants for each specific subcontracting opportunity. Propose the participation goals which are considered to be achievable.
- F. Promote opportunities for DBE firms to participate in submitting offers for subcontracts. Provide potential Subcontractors and Suppliers with a copy of Owner's DBE policy with bid documents. Make a good faith effort to encourage DBE participation and make potential Subcontractors and Suppliers aware that participation is taken into consideration when awarding contracts.

## 2.02 Value Engineering Studies

- A. Participate in Value Engineering reviews at the level appropriate for the projects at the completion of the first draft of the Final Design Phase documents (approximately 60% completion) to assist in identifying ways to improve value to the owner or reduce the cost for the project. Provide cost estimates to quantify potential cost savings to reduce the overall cost for the Project.
- B. Assist OA in conducting a workshop to identify potential changes which could reduce the cost of the Project or increase the value of the Project by more than the cost of the changes. Present selected alternatives for more detailed evaluation. The detailed evaluation will consider cost, ability to implement the changes, technical analysis, and the impact of changes on the Project. Ideas that pass the technical and economic analysis, and merit incorporation into the design of the project, will be presented, in a draft report, as a proposal to the OPT for consideration. Incorporate responses of the OPT in the final report.
- C. Review and comment on deliverables which include draft and final value engineering recommendation reports.

## 2.03 Start Up and Commissioning Program

- A. Provide CMAR's organizational structure for startup and commissioning. Identify the individuals from CMAR, Subcontractors and Suppliers actively involved in the process. Identify testing personnel required for startup, including independent testing agencies. Work with Owner's Advisor to develop a table of roles and responsibilities for CMAR team and the OPT.
- B. Develop a written start up and commissioning program consistent with the requirements of the Contract Documents. Write the plan in a way that will allow specific details to be added or information updated as equipment and materials are purchased and delivered.
- C. Identify all systems to be included in the startup plan, each item of equipment involved with each system and the interface between each item of equipment and other operating equipment. Identify how each equipment component fits into operations of the completed facility.

- D. Identify control systems associated with operating the system or facility, and how each is used to start-up, operate, and shut down its associated system. Identify prerequisite conditions for startup and testing for each system and facility. Identify conditions which would merit termination of startup or testing procedures.
  - E. Compile a list of all documents required for startup, including Contract Documents, Shop Drawings, operations and maintenance manuals, verification of warranty information, lists of spare parts and their location, and contact information for manufacturer's representatives to be included in startup readiness testing /verification and performance testing.
  - F. Identify testing required for factory witness testing, startup readiness verification, equipment and performance testing, and functional and performance testing.
  - G. Provide a preliminary schedule for startup and commissioning plans which can be updated as more detailed information is available. Incorporate this schedule in the master schedule and construction schedule for the Project.
- 2.04 Surveys and Drawings
- A. Provide field surveying required for the preparation of designs and drawings.
  - B. Provide Geographic Information System (GIS) mapping services or assistance with these services.
  - C. Prepare property, boundary, and right-of-way surveys; prepare easement and deed descriptions; conduct related title searches and examination of deed records.
- 2.05 Regulatory Agencies
- A. Assist OPT in preparing applications and supporting documents for government grants, loans, or planning advances, and providing data for detailed applications other than those described in **[include reference]**.
  - B. Additional meetings with local, state, and federal agencies in excess of those described in **[include reference]**.
- 2.06 Additional Inspections and Quality Management
- A. Provide shop, mill, or laboratory inspections of materials and equipment, or field inspections of materials and equipment other than as required as Basic Services.
  - B. Unscheduled Post-Completion Inspections as required per Paragraph **[include reference]**.
- 2.07 Studies, Reports, and Investigations
- A. Provide geotechnical investigations, studies, and reports.
- 2.08 Additional Copies of Documents
- A. Furnish additional sets of printed documents created by the CMAR.
- 2.09 **[Other Additional Preconstruction Services]**
- A. **[Include other Additional Preconstruction Services here. Add lines to Proposal Exhibit A and Agreement Exhibit B for these items.]**

## ARTICLE 3—BASIC PROCUREMENT SERVICES

### 3.01 Project Management

#### A. Participate in Project Meetings

1. Participate in kick-off meeting for Procurement Services. Be prepared to discuss changes in CMAR's team and organization structure for Procurement Services, assignments of responsibilities, and CMAR's plan for implementation of Procurement Services.
2. Participate in periodic meetings with the OPT to review progress, coordinate efforts, and discuss planned activities related to procurement. It is anticipated that these progress meetings will occur **[weekly]** at times when procurement activities for Work Packages are underway.

#### B. Provide administration of Agreement for CMAR Procurement Services, including Applications for Payment, progress reporting, management of CMAR staff, schedule for services, and deliverables.

### 3.02 Assembling Work Packages

#### A. Assemble appropriate bid documents for distribution to prospective bidders for Work Packages in accordance with the procurement strategies defined in the Construction Management Plan and Procurement Strategy Plan (see Basic Preconstruction Services).

### 3.03 Advertise for Bids

#### A. Publicly advertise each Work Package, soliciting bids from Subcontractors and Suppliers for each Work Package in accordance with the applicable provisions of Laws and Regulations.

#### B. Maintain a list of all entities that have requested bid documents for each Work Package (planholders) until bids are received. Provide updates of the planholders as required by the Owner's Advisor.

#### C. Encourage multiple Subcontractors and Suppliers to submit bids on the Work Package so a minimum of three bids are received for each Work Package.

### 3.04 Pre-Bid Conferences

#### A. Conduct a pre-bid conference with prospective Subcontractor and Suppliers to familiarize them with:

1. Bid opportunities for Work Packages;
2. Special requirements of the Contract Documents;
3. Prevailing wage requirements;
4. Equal employment opportunity requirements; and
5. Diverse Business Enterprise requirements, if any.

#### B. Obtain responses from the Owner's Advisor, in consultation with the Engineer, to all questions at pre-bid conferences requiring a modification to the Contract Documents. Prepare a record of the discussions at the pre-bid conference to assist the Owner's Advisor and Engineer in preparing Addenda as appropriate. Review and comment on Addenda

prepared by the Owner's Advisor in consultation with the Engineer to incorporate responses to questions raised during or as a result of the pre-bid conference.

### 3.05 Addenda

- A. Receive draft Addenda prepared by the Owner's Advisor in consultation with the Engineer. Review the draft Addenda for clarity, consistency, and coordination, and provide comments to Owner's Advisor and Engineer. By conducting such reviews and providing comments, CMAR does not assume responsibility or liability, in whole or in part, for all or any part of the Project design or the content of the Contract Documents.
- B. Distribute Addenda regarding any changes in the bid process or Contract Documents to all planholders. Require verification from planholders that Addenda have been received.

### 3.06 Opening Bids

- A. Open bids submitted by Subcontractors and Suppliers for all Work Packages at the time and location so indicated in the advertisement for bid or as altered by addendum sent to all planholders.
- B. Where allowed by state Laws and Regulations, the CMAR may be able to self-perform portions of the Work. Require sealed bids for all Work Packages which the CMAR proposes to perform with its own resources. The CMAR must submit a sealed bid for any such Work Package to be opened at the same time and in the same manner that other bids for this Work are to be opened. The CMAR will be allowed to self-perform that Work for which the CMAR's bid demonstrates that it will provide the best value in terms of cost, schedule, and quality of Work.
- C. Review all bids submitted in the presence of the Owner and the Owner's Advisor in a way that does not disclose the contents of the bid during the selection process to any entity other than the OPT and CMAR.
- D. Compare bids received to the line-item budget prepared for the Project prior to the opening of bids. Resolve discrepancies or overlaps in bid packages to eliminate duplications or the omission of elements of the Work that are not included in Construction Support Costs. Discuss each bid received with the OPT and recommend which bid received will provide best value for the Owner.
- E. Evaluate any substitutions or alternate bids offered by bidders. Owner's Advisor, in consultation with the Engineer, will evaluate the substitutions or alternate bids to determine the technical merit and to determine that the modifications offered are consistent with the intent of the Contract Documents. The Owner, in consultation with the Owner's Advisor and Engineer, will determine if the substitution or alternate is acceptable.
- F. The Owner will adjust the Guaranteed Maximum Price (GMP) if the Owner requires the CMAR to contract with a Subcontractor or Supplier different from the entity submitting the bid on which the GMP is based. This adjustment will be made in the GMP or by Change Order if the GMP has already been established by a Work Authorization.
- G. In the case of the need to replace a Subcontractor or Supplier under the provisions of the General Conditions Paragraph 7.10.O, Owner may direct the CMAR to obtain competitive bids for this Work if the cost proposed by the CMAR or substitute Subcontractor or Supplier

for this Work differs from the line-item estimate by more than 10 percent of the line-item amount. The CMAR will not be required to advertise this Work as required in Paragraph 1.02.

- H. Make all bids public after the award of contracts or not later than 7 days after the date of the final selection of bids or proposals.

#### ARTICLE 4—ADDITIONAL PROCUREMENT SERVICES

##### 4.01 Diverse Business Program Implementation

- A. Promote opportunities for DBE firms to participate in submitting offers for subcontracts. Provide potential Subcontractors and Suppliers with a copy of Owner’s DBE policy with bid documents. Make a good faith effort to encourage DBE participation and make potential Subcontractors and Suppliers aware that participation is taken into consideration when awarding contracts.

**Guidance Notes**—Owners should be aware that DBE firms may not provide the lowest cost bid and should decide with the CMAR if selecting a qualified DBE organization to meet its goals is worth the increased cost. The GMP should be adjusted if the decision is made to select DBE organizations for subcontracting opportunities when a lower cost non-DBE organization has submitted a lower bid.

- B. Notify Owner if a qualified DBE Subcontractor or Supplier submits a bid but has submitted a higher bid price than a qualified non-DBE Subcontractor or Supplier. Work with the Owner to determine if the subcontract is to be awarded to the higher priced DBE subcontractor. Adjust the GMP accordingly.

##### 4.02 Prequalification of Bidders

- A. Prequalify bidders for the Project using the OPT’s prequalification process. If the OPT does not have a prequalification process in place for this Project, CMAR will assist the OPT in developing and implementing a prequalification process. Any prequalification of bidders must also be in accordance with applicable state Laws and Regulations.

##### 4.03 Additional Work Packages

- A. Providing additional effort to procure Work Packages in addition to the number of Work Packages stipulated in Paragraph 3.02.

##### 4.04 Regulatory Agencies

- A. Preparing applications and supporting documents for government grants, loans, or planning advances, and providing data for detailed applications other than those described in **[include reference]**.
- B. Additional meetings with local, state, and federal agencies in excess of those described in **[include reference]**.

##### 4.05 Additional Copies of Documents

- A. Furnishing additional sets of printed documents.

4.06 **[Other Additional Procurement Services]**

- A. **[Include other Additional Procurement Services here. Add lines to Proposal Exhibit A and Agreement Exhibit B for these items].**

**ARTICLE 5—SPECIAL SERVICES**

- 5.01 The scope of services for Special Services, if any, will be the scope set forth in the Contract Amendment(s) establishing and authorizing such Special Services.

SAMPLE

## EXHIBIT B—GUIDELINES FOR PREPARING AGREEMENT EXHIBIT B

### Guidance Notes

1. The Agreement Exhibit B, Basis of Compensation, is used to calculate the Estimated Contract Price for the Agreement. These Guidance Notes are written to provide information for the Owner and Owner’s Advisor and to aid in the preparation of the Agreement Exhibit B. The CMAR will not make any entries in this table. The OA will prepare the Exhibit B to formalize the information from the Proposal of the selected Proposer, with modifications to 1) capture any selected options from alternative proposals or other modifications, 2) incorporate the results of any negotiations between the Owner and the selected Proposer, and 3) include Owner Contingencies for CMAR Services and for an Owner’s Contingency Allowance for construction, if any.
2. The Estimated Cost of the Work approximates the Cost of the Work (which does not include the CMAR Fee or Construction Support Costs) prepared by the Owner’s Advisor and is used to establish a preliminary Contract amount. The Estimated Guaranteed Maximum Price (GMP) is not binding at the time the Agreement is signed unless the GMP can be established with some degree of certainty. It is anticipated that a binding GMP will not be established when the Agreement is signed or when the initial Work Authorizations are issued; rather the binding GMP will be established later when the project design has been substantially developed. Numbers for the CMAR Fee and CMAR Contingency Allowance are binding and will be incorporated into the Agreement.
3. The Proposal, Agreement, Work Authorization, and Application for Payment tables, presented as Exhibits, were all developed using Microsoft Excel™ to take advantage of its capabilities to make calculations, logic decisions, and transfer data from one worksheet to the next, within the same Workbook (file.) Each Workbook is intended to be consistent with the others in terms of format, content, and protocols for use. One of the benefits of this consistency is the ability to copy information into subsequent tables as the data moves from Proposal to Application for Payment, thus reducing the need for re-keying data.
4. It is assumed that those that use these tables will have a fundamental understanding of Excel; however, some basic instructions on using Excel are provided in the EJCDC® CMAR 620, Application for Payment—Construction Manager at Risk Series (2023).
5. Like Proposal Exhibit A, the Agreement Exhibit B consists of four tables. Table 1 captures key information regarding the price for CMAR Services, Construction Support Costs, CMAR Fee, and CMAR Contingency. Table 1 serves as a summary sheet for calculations, pulling key numbers from Tables 2 through 4. A general description of each of these tables is provided below:
  - a. Table 1 Estimated Contract Price
    - 1) Compensation for CMAR Services is calculated in Table 2—Compensation for CMAR Services and the total amount for these services is transferred to Table 1.
    - 2) Estimated Guaranteed Maximum Price represents the CMAR’s cost to construct the Work and consists of the Total Construction Support Cost, the Cost of the Work, CMAR Fee and CMAR Contingency, and other Contingency Allowances. This amount does not include costs for CMAR Services or Owner’s Contingency Allowances.
    - 3) Amounts for Construction Support Costs are calculated in Table 3 for Fixed Construction Support Costs and in Table 4 for Time Sensitive Construction Support Costs. The amount

for each of these costs are transferred to Table 1 and added together to determine the Total for Construction Support Costs.

4) Cost of the Work with CMAR Fee.

- a) The actual Cost of the Work is not known at the time the Agreement is signed and will not be determined until the design has progressed to a point when a more definitive and binding cost can be determined. The Owner, typically through its Owner's Advisor, determines the Estimated Cost of the Work (Estimated COW) amount to be used to calculate an Estimated Guaranteed Maximum price using the CMAR Fee, Construction Support Costs, and CMAR contingency from the selected Proposal.
- b) Depending on negotiations between the Owner and selected Proposal, modifications may be made to the Estimated COW, contingency allowance amounts and other factors which may impact the Estimated GMP.
- c) The Cost for CMAR Services and Owner's Contingency are added to the GMP to determine an Estimated Contract Price. This is the amount for which the Contract will be awarded. At the option of the Owner, the Contract Award might be based on CMAR services and the Estimated Guaranteed Maximum Price might be established at a later time when the design of the Project has progressed to the point where a better estimate of the cost is determined. At that mutually acceptable point, a more definitive GMP can be established and the Contract Price can be fixed by issuing a Contract Amendment.
- d) The CMAR Fee as proposed by or negotiated with the CMAR is typically calculated as a percentage of the Estimated Cost of the Work or may be a stipulated sum. The amount of the CMAR Fee in the Agreement is based on the fee structure presented in the Proposal and is based on either one, or combination of the following:

- (1) CMAR Fee is calculated as a single percentage of the Estimated COW per Agreement Paragraph 7.01.A.
- (2) CMAR Fee is calculated as different percentages applied to specified Cost of the Work categories per Agreement Paragraph 7.01.B.
- (3) CMAR Fee is a stipulated fixed fee per Agreement Paragraph 7.01.C.

This structure will follow the same method for CMAR Fee selected by Owner and Owner's Advisor in preparing the Proposal form.

5) CMAR Contingency Allowance and other Contingency Allowances

- a) The amount for the CMAR Contingency Allowance is typically calculated as a percentage of the Estimated COW. Enter the proposed or negotiated percentage where designated. This percentage will be multiplied by the Estimated COW to calculate an amount for the CMAR Contingency allowance. A percentage is typically used since the Cost of Work has not yet been established.
- b) In some instances, the Owner's Project Team (Owner, Owner's Advisor, and Engineer; "OPT") may identify other specific contingency allowances for specific use outside of the CMAR Contingency Allowance. These other contingency allowances should be described in the Agreement together with discussion of the allowances' intended uses, and identification of restrictions on their use. The amount for each such contingency

should be added where indicated in Table 1 to include it in the Estimated Contract Price.

- c) The OPT may identify other specific cash allowances in accordance with General Conditions Paragraph 13.01. These should be added where indicated in Table 1 to include them in the Estimated Contract Price.
- d) The total amount for the CMAR Contingency Allowance plus all other contingency allowances is calculated for use in calculating the Estimated GMP.

- 6) **Contract Times**—The estimated number of days to reach Substantial Completion and the estimated number of days to reach Final Completion as proposed by or negotiated with the CMAR are entered in the Table 1 section for Contract Times. This is typically only a rough estimate for completion days since the scope of the project has yet to be determined. If the Owner elects to do so, it can wait until after CMAR completes its Preconstruction Services before determining schedule days. In this event, Owner should enter TBD (To Be Determined) in this Table. If the Owner has specific requirement for completion, the maximum number of allowable days can be entered into the Contract Times section, or this can be modified to specify dates instead of days. See Agreement Paragraph 15.01.

**b. Table 2— Compensation for CMAR Services**

- 1) Check to see that all tasks identified in Agreement Exhibit A Scope of CMAR’s Services are included in Table 2. Modify Table 2 to add new tasks or delete unused tasks so the Task Numbers and Descriptions are the same as those in the Scope of CMAR’s Services.
- 2) Enter the names, classifications, and billing rates for the individuals proposed to provide CMAR Services in the table header from the Proposal. These billing rates will be used to determine the value of compensation for Basic and Additional Services based on the number of hours estimated for each task. Enter the estimated number of hours for each participating individual for each Task in the table. The worksheet will calculate extended amounts for each task, total the amount for Basic and Additional Services for both Preconstruction and Procurement Services, and the total for all CMAR Services. (See Agreement Paragraph 3.04.)
- 3) The worksheet provides two options for including a contingency amount for Special Services. A contingency amount may be stipulated as a lump sum amount or as a percentage of the Totals for Basic and Additional Services.
  - a) When CMAR Special Services cost is a Stipulated Sum, enter the amount in the table.
  - b) If CMAR Special Services cost is to be based as a percentage of the Total amount for Basic and Additional Services, enter the percentage in the line for calculating the amount for Special Services to calculate the contingency amount for Special Services.
  - c) If the line for the option not selected is deleted, revise the worksheet equation accordingly (See Notes to User in Table 2).
- 4) The Total Cost for CMAR Services is transferred to Table 1.

**c. Table 3—Basis of Compensation for Fixed Construction Support Costs**

- 1) Enter data for Fixed Construction Support Costs (See Agreement Paragraph 5.02) in Column A through Column F. Rows can be added as needed. Extended amounts and the

Total Lump Sum Fixed Construction Support Costs will automatically be calculated and transferred to Table 1.

d. Table 4–Basis of Compensation for Time-Sensitive Construction Support Costs

- 1) Enter data for Time-Sensitive Construction Support Costs (See Agreement Paragraph 5.03) in Column A through Column H. Rows can be added as needed. Extended amounts and the Total Lump Sum Time-Sensitive Construction Support Costs will automatically be calculated and copied into the appropriate cells in Table 1.
- 2) The Daily Rate for Time-Sensitive Construction Support Costs is calculated in Table 4 for information but is not a component of the Construction Support Costs or the Estimated Contract Price.

6. Attachment A to this exhibit provides detailed information for each table in Exhibit B. The tables in the following Attachment A include a description of each column or designated row or cell, their related calculations, and Notes to User on the function of each. Cells are typically locked except when modifying the tables to prevent accidental overwriting of equations or functions. Restrictions allow additional rows to be added as needed for Table 3 and Table 4.

The Exhibit A tables and the tables for each documents in Attachment A use color coding and different fonts to help provide direction on completing these tables. The following table provides a summary of those conventions:

	No color is used in cells prepared by the Owner’s Advisor.
	Light green indicates cells in which the Proposer or CMAR is to enter data, amounts or factors in the form of percentages. This color is not used in the Agreement Exhibit B since OA will prepare this document.
	Light blue indicates that the cell includes an equation. These cells are normally protected unless changes are being made to the worksheet.
	Light purple indicates cells containing data or amounts that are transferred to Table 1.
<b>b</b>	Lower-case letters in blue and bold fonts indicate column designators used for instructions. These may not correspond to Excel worksheet column headings since columns may have been combined for formatting. These correspond to information provided in the tables in Attachment A.
<b>3</b>	Numbers in blue and bold fonts indicate row or cell designators used for instructions. These correspond to information provided in tables in Attachment A.
<b>Table</b>	Names of other worksheets within the workbook are in blue and bold fonts.
<b>C a</b>	The capital letter “C” followed by a lower-case letter in blue and bold fonts is an abbreviated designation for a Column, in this example, Column <b>a</b> .
<b>R 1</b>	The capital letter “R” followed by a number in blue and bold fonts is an abbreviated designation for a Row, in this example, Row <b>1</b> .
<b>[ ]</b>	Brackets indicate a place holder where a specific type of information is to be provided.

**ATTACHMENT A—DETAILED INFORMATION FOR AGREEMENT EXHIBIT B**

**Table 1—Estimated Contract Price**

Item	Item Title	Calculation	Comment
1	Compensation for CMAR Services	= Table 2, R 11	Transfers amount for Total Cost for CMAR Services from Table 2—Compensation for CMAR Services.
2	Fixed Construction Support Costs	= Table 3, R 1	Transfers amount for Total Fixed Construction Support Cost from Table 3—Basis of Compensation for Fixed Construction Support Cost.
3	Time Sensitive Construction Support Costs	= Table 4, R 1	Transfers amount for Total Time Sensitive Construction Support Cost from Table 4—Basis of Compensation for Time Sensitive Construction Support Cost.
4	Total Construction Support Costs	(2 + 3)	Worksheet calculates Total Construction Support Costs by adding the amount for Fixed Construction Support Cost to the amount for Time Sensitive Construction Support Cost.
5	Estimated Cost of the Work	[Enter Amount]	Enter the Estimated Cost of the Work prepared by the Owner’s Advisor. This number is used to determine an estimated Guaranteed Maximum Price (GMP) which is included in calculating an estimated Contract Price.
6	CMAR Fee Percentage	[Enter %]	Enter the proposed or negotiated CMAR Fee Percentage.
7	CMAR Fee	(5 x 6)	Worksheet calculates the amount of the CMAR Fee by multiplying the Estimated Cost of the Work times the CMAR Fee Percentage. This is the amount of CMAR Fee based on Estimated Cost of the Work. Fee is earned as a percentage of the actual cost on approved Work Authorizations.
8	Cost of the Work with CMAR Fee	(5 + 7)	Worksheet calculates the amount of the Cost of the Work with CMAR Fee by adding the Estimated Cost of the Work to the CMAR Fee.
9	Payroll Cost—Estimated Cost of the Work	[Enter Amount]	Enter the Estimated Cost of the Work allocated to Payroll Cost.
10	Payroll Cost—CMAR Fee Percentage	[Enter %]	Enter the CMAR Fee Percentage proposed or negotiated for Payroll Costs
11	Payroll Cost—CMAR Fee Amount	(9 x 10)	Worksheet calculates the CMAR Fee amount for Payroll Cost by multiplying the Estimated Cost of the Work for Payroll times its CMAR Fee Percentage.
12	Payroll Cost—Cost with CMAR Fee	(9 + 11)	Worksheet calculates Payroll Cost with CMAR Fee by adding the Estimated Cost of the Work for Payroll to the Payroll Cost CMAR Fee Amount.
13	Incorporated Equipment and Materials—Estimated Cost of the Work	[Enter Amount]	Enter the Estimated Cost of the Work allocated to Equipment and Materials Incorporated into the Work.
14	Incorporated Equipment and Materials— CMAR Fee Percentage	[Enter %]	Enter the CMAR Fee Percentage proposed or negotiated for Equipment and Materials Incorporated into the Work.

Item	Item Title	Calculation	Comment
15	Incorporated Equipment and Materials—CMAR Fee Amount	(13 x 14)	Worksheet calculates the CMAR Fee amount for Incorporated Equipment and Materials by multiplying the Estimated Incorporated Equipment and Materials Cost times its CMAR Fee Percentage.
16	Incorporated Equipment and Materials—Cost with CMAR Fee	(13 + 15)	Worksheet calculates Incorporated Equipment and Materials Cost with CMAR Fee by adding the Estimated Cost of Incorporated Equipment and Materials to its CMAR Fee Amount.
17	Consumable Equipment and Materials Cost—Estimated Cost of the Work	[Enter Amount]	Enter the Estimated Cost of the Work allocated to equipment and materials consumed in construction of the Work.
18	Consumable Equipment and Materials Cost—CMAR Fee Percentage	[Enter %]	Enter the CMAR Fee Percentage proposed or negotiated for equipment and materials consumed in construction of the Work.
19	Consumable Equipment and Materials Cost—CMAR Fee Amount	(17 x 18)	Worksheet calculates the CMAR Fee amount for Consumable Equipment and Materials by multiplying the Estimated Consumable Equipment and Materials Cost times its CMAR Fee Percentage.
20	Consumable Equipment and Materials Cost—Cost with CMAR Fee	(17 + 19)	Worksheet calculates Consumable Equipment and Materials Cost with CMAR Fee by adding the Estimated Cost of Consumable Equipment and Materials to its CMAR Fee Amount.
21	Subcontractor Cost—Estimated Cost of the Work	[Enter Amount]	Enter the Estimated Cost of the Work allocated to Subcontractor Cost.
22	Subcontractor Cost—CMAR Fee Percentage	[Enter %]	Enter the CMAR Fee Percentage proposed or negotiated for Subcontractor Cost.
23	Subcontractor Cost—CMAR Fee Amount	(21 x 22)	Worksheet calculates the CMAR Fee amount for Subcontractor Cost by multiplying the Estimated Cost of the Work for Subcontractor Cost times its CMAR Fee Percentage.
24	Subcontractor Cost—Cost with CMAR Fee	(21 + 23)	Worksheet calculates Subcontractor Cost with CMAR Fee by adding the Estimated Cost of the Work for Subcontractor Cost to its CMAR Fee Amount.
25	Construction Equipment Cost—Estimated Cost of the Work	[Enter Amount]	Enter the Estimated Cost of the Work allocated to Construction Equipment Cost.
26	Construction Equipment Cost—CMAR Fee Percentage	[Enter %]	Enter the CMAR Fee Percentage proposed or negotiated for Construction Equipment Costs.
27	Construction Equipment Cost—CMAR Fee Amount	(25 x 26)	Worksheet calculates the CMAR Fee amount for Construction Equipment by multiplying the Estimated Cost of the Work for Construction Equipment Cost times its CMAR Fee Percentage.
28	Construction Equipment Cost—Cost with CMAR Fee	(25 + 27)	Worksheet calculates Construction Equipment Cost with CMAR Fee by adding the Estimated Cost of the Work for Construction Equipment Cost to its CMAR Fee Amount.

Item	Item Title	Calculation	Comment
29	Supplemental Cost— Estimated Cost of the Work	[Enter Amount]	Enter the Estimated Cost of the Work allocated to Supplemental Cost.
30	Supplemental Cost—CMAR Fee Percentage	[Enter %]	Enter the CMAR Fee Percentage proposed or negotiated for Supplemental Costs
31	Supplemental Cost—CMAR Fee Amount	(29 x 30)	Worksheet calculates the Estimated Cost of the Work for Supplemental Cost by multiplying the Estimated Cost of the Work for Supplemental Cost times its CMAR Fee Percentage.
32	Supplemental Cost—Cost with CMAR Fee	(29 + 31)	Worksheet calculates Supplemental Cost with CMAR Fee by adding the Estimated Cost of the Work for Supplemental Cost to its CMAR Fee Amount.
33	Total Estimated Cost of the Work	Σ (9, 13, 17, 21, 25, 29)	Worksheet calculates the Total Estimated Cost of the Work by summing the Estimated Cost of the Work for each of the Cost of the Work Categories.
34	Total CMAR Fee	Σ (11, 15, 19, 23, 27, 31)	Worksheet calculates the Total CMAR Fee by summing the CMAR Fee for each of the Cost of the Work Categories.
35	Cost of the Work with CMAR Fee	Σ (12, 16, 20, 24, 28, 32)	Worksheet calculates the Total Cost of the Work with CMAR Fee by summing the Cost with CMAR Fee for each of the Cost of the Work Categories.
36	Estimated Cost of the Work	[Enter Amount]	Enter the Estimated Cost of the Work prepared by the Owner’s Advisor. This number is used to determine an estimated Guaranteed Maximum Price (GMP) used for approval of an estimated Contract Price.
37	CMAR Lump Sum (stipulated) Fee	[Enter Value]	Enter the stipulated amount proposed or negotiated for CMAR Fee.
38	Cost of the Work with CMAR Fee	(36 + 37)	Worksheet calculates the Cost of the Work with CMAR Fee by adding the Estimated Cost of the Work to the lump sum CMAR Fee.
39	CMAR Contingency Allowance Percentage	[Enter %]	Enter the proposed or negotiated percentage of the Cost of the Work to be used to calculate the CMAR Contingency Allowance.
40	Estimated Cost of the Work	[Enter Amount]	Enter the Estimated Cost of the Work prepared by the Owner’s Advisor. This number is used to determine an estimated Guaranteed Maximum Price (GMP) used for approval of an estimated Contract Price.
41	CMAR Contingency Allowance	(39 x 40)	Worksheet calculates amount of CMAR Contingency Allowance by multiplying the CMAR Contingency Allowance Percentage times the Estimated Cost of the Work.
42	Other Specific Product or Contingency Allowance	[Enter Amount]	Identify other contingency allowances proposed or negotiated to be included in the Contract Price. Contingency allowance should be restricted to use for its stated purpose. Contingency allowance amount will be adjusted based on actual cost per applicable General Condition or Supplementary Conditions provisions related to a contingency allowance. Enter a description of the contingency allowance item and the amount for the contingency allowance.
43	Total CMAR and Other Contingency Allowances	(41 + 42)	Worksheet calculates Total CMAR and Other Contingency Allowances amount by adding the CMAR Contingency Allowance to other specified contingency allowances.

Item	Item Title	Calculation	Comment
44	Estimated Guaranteed Maximum Price	$(4 + (8 \text{ or } 35 \text{ or } 38 + 43))$	Worksheet calculates the Estimated GMP by summing the cost for Construction Support Costs, Cost of the Work with CMAR Fee, and CMAR and Other Contingency Allowances. Depending on the procedures used for calculating the CMAR Fee, Items 8, 35, or 38 may be deleted. Delete terms that appear as #REF! in the equation for 44 per the Note to User for this section.
45	Owner's Contingency Allowance	[Enter Amount]	Enter the Owner's Contingency Allowance amount if the Owner's Contingency Allowance is to be include in the Contract Price.
46	Total Amount of Contract Award	$(1 + 44 + 45)$	Worksheet calculates The Total Amount of the Contract Award (amount for which Contract will be awarded) by summing the Cost for CMAR Services, the Estimated Guaranteed Maximum Price (calculated using the selected compensation method) and the Owner's Contingency Allowance.
47	Substantial Completion Days	[Enter Days]	Enter the proposed or negotiated days to Substantial completion in accordance with the applicable General Condition or Supplementary Conditions provisions.
48	Final Completion Days	[Enter Days]	Enter the proposed or negotiated days to Final Completion in accordance with the applicable General Condition or Supplementary Conditions provisions.
49	Construction Period Days	$(47 + 48)$	Worksheet calculates the Construction Period by adding the number of day to reach Substantial Completion to the number of additional days to reach Final Completion.

**Table 2—Compensation for CMAR Services**

Column	Column Title	Calculation	Comment
a	Task	[Enter Data]	Enter the Task Number (from the corresponding paragraph number) for each item in the final Agreement Exhibit A Scope of CMAR Services. Standard tasks are shown.
b	Description	[Enter Data]	Enter the paragraph title for each item in the final Agreement Exhibit A Scope of CMAR Services. Standard tasks are shown.
c - g	Name of Provider	[Enter Data]	Enter the name of each CMAR service Provider. Enter the estimated number of hours for each task for each Provider in the rows below.
	Classification	[Enter Data]	Enter the type of service provided by each Provider. Examples: Project Manager, CMAR Services Manager, Estimator, Scheduler etc.
	Billing Rate	[Enter Amount]	Enter the hourly billing rate for each Provider. Rate is to include all fringe costs and expenses.
h	Amount	Hrs <b>C c</b> x Rate <b>C c</b> + Hrs <b>C d</b> x Rate <b>C d</b> + Hrs <b>C e</b> x Rate <b>C e</b> + Hrs <b>C f</b> x Rate <b>C f</b> + Hrs <b>C g</b> x Rate <b>C g</b>	Worksheet calculates Amount by multiplying the number of hours for each Task times the Billing Rate in the Column Titles for each Provider and totaling these to determine the total amount for each Task item.
Row	Row Title	Calculation	Comment
1	Total Cost for CMAR Preconstruction Basic Services	$\sum C h$ for Task 1.00	Worksheet calculates total for Preconstruction Basic Services.
2	Total Cost for CMAR Preconstruction Additional Services	$\sum C h$ for Task 2.00	Worksheet calculates total for Preconstruction Additional Services.
3	Total Cost for CMAR Preconstruction Services	(1 + 2)	Worksheet calculates total for Preconstruction Services.
4	Total Cost for CMAR Procurement Basic Services	$\sum C h$ for Task 3.00	Worksheet calculates total for Procurement Basic Services.
5	Total Cost for CMAR Procurement Additional Services	$\sum C h$ for Task 4.00	Worksheet calculates total for Procurement Additional Services.
6	Total Cost for CMAR Procurement Services	(4 + 5)	Worksheet calculates total for Procurement Services.
7	Total Owner's Contingency Allowance for CMAR Special Services (Stipulated Sum)	[Enter Amount]	Enter an amount for an Owner's Contingency Allowance dedicated to CMAR Special Services. Owner may choose to use Owner's Contingency Allowance to cover these additional services or may prefer that these be separate and reserved for CMAR services. This is recommended if Owner Contingency allowance will be established later as part of negotiations for the GMP

Attachment A—Detailed Information for Agreement Exhibit B.

Exhibit B— Guidelines for Preparing Agreement Exhibit B.

EJCDC® CMAR-525, Agreement between Owner and Construction Manager at Risk.

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Row	Row Title	Calculation	Comment
8	Owner's Contingency Allowance for CMAR Special Services Percentage	[Enter %]	Enter the amount for the Owner's Contingency Allowance. Owner can base the amount of its contingency allowance for CMAR Special Services as a percentage of totals for Preconstruction Services and Procurement Services. Enter that percentage here.
9	Owner's Contingency Allowance for CMAR based on Special Services (% of CMAR Services)	$(3 + 6) \times 8$	Worksheet calculates the Owner's contingency allowance based on the percentage for CMAR Special services entered in p and the totals for Preconstruction and Procurement Services. This provides a larger contingency that will adjust if Additional services are added. Change the calculations if the contingency allowance is to be based on the total for Basic services only $((1 + 4) \times 8)$ .
10	Total Owner's Contingency Allowance for CMAR Special Services	= 7 or 9	Worksheet calculates the Owner's contingency allowance. If no percentage is entered in 8 the amount in 7 will be returned in 10. If a percentage is entered in 8, then 9 will be returned.
11	Total Cost for CMAR Services	$(3 + 6 + 10)$	Worksheet calculates the total for CMAR Services. This number is transferred to <a href="#">Table 1 R 1</a> to be included in the calculation of the Contract Price. It is not part of the Guaranteed Maximum Price for Work

**Table 3—Basis of Compensation for Fixed Construction Support Cost**

Column	Column Title	Calculation	Comment
a	CMAR Number	[Enter Data]	Enter the CMAR Number for this item as submitted in the Proposal. Used solely for convenience in referencing a line item
b	Contract Reference	[Enter Data]	Enter a reference to a specification section or drawing. Used to reference applicable Specification sections.
c	Description	[Enter Data]	Enter a brief description of the Fixed Construction Support Cost item.
d	Quantity	[Enter Number]	Enter the quantity of each Fixed Construction Support Cost item. If the cost is a lump sum item, the Unit designation would be LS and the quantity would be shown as "1".
e	Units	[Enter Data]	Enter the Units of measure. Example: months, weeks, each, or similar units.
f	Unit Cost	[Enter Amount]	Enter the Unit Cost per unit for each item.
g	Amount	(d x f)	Worksheet calculates the amount for each line item by multiplying the Quantity times the Unit Cost amount for each Item.
Row	Row Title	Calculation	Comment
1	Total Fixed Construction Support Costs	$\sum Cg$	Worksheet calculates the Total Fixed Support Cost by summing all Fixed Support Cost line items. This amount is transferred to <a href="#">Table 1, R 2</a> .

**Table 4—Basis of Compensation for Time Sensitive Construction Support Cost**

Column	Column Title	Calculation	Comment
a	CMAR Number	[Enter Data]	Enter the CMAR Number for this item as submitted in the Proposal. Used solely for convenience in referencing a line item
b	Contract Reference	[Enter Data]	Enter a reference to a specification section or drawing. Used to reference applicable Specification sections.
c	Description	[Enter Data]	Enter a brief description of the Time Sensitive Construction Support Cost item.
d	Quantity	[Enter Number]	Enter the quantity of each Time Sensitive Construction Support Cost item. If the cost is a lump sum item, the Unit designation would be LS and the quantity would be shown as “1”.
e	Units	[Enter Data]	Enter the Units of measure. Example: months, weeks, each, or similar units.
f	Unit Cost	[Enter Amount]	Enter the Unit Cost per unit for each item.
g	Amount	(d x f)	Worksheet calculates the amount for each line item by multiplying the Quantity times the Unit Cost amount for each Item.

  

Row	Row Title	Calculation	Comment
1	Total Time Sensitive Construction Support Costs	$\sum C g$	Worksheet calculates the Total Fixed Support Cost by summing all Time Sensitive Construction Support Cost line items. This amount is transferred to <a href="#">Table 1, R 3</a> .
2	Construction Period	= (Table 1, R 49)	Number of days in the Construction Period. This number is transferred here from <a href="#">Table 1, R 49</a> .
3	Construction Support Cost Extended Rate	(1 / 2)	Worksheet calculates the Extended Rate for Time Sensitive Construction Support Cost by dividing the Total Time Sensitive Construction Support Cost by the number of days in the Construction Period.