حرفه مدیریت ساخت

(سند Capstone، از مراجع اصلی اخذ مدارک CMAA)

بخش دوم: قراردادها و موافقت‌نامه‌های مدیریت ساخت

ارائه دهنده:

سید محمدرضا علوی‌پور

(PhD, PMP, CMIT)

CMAA Authorized Trainer

دانشگاه Illinois Tech آمریکا

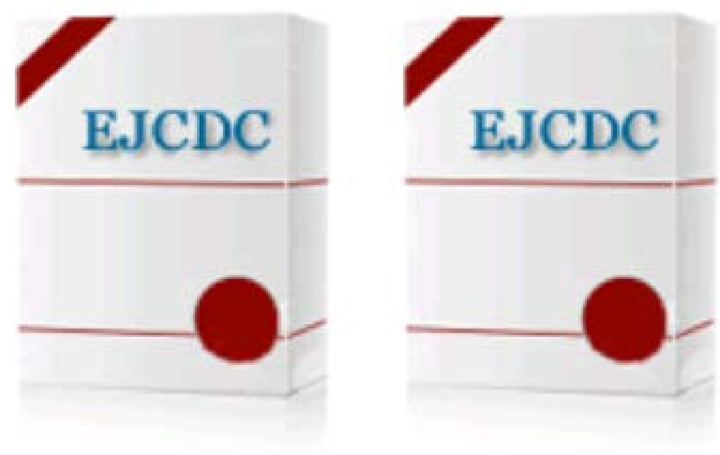
ACEMI

What we will learn?

- ❑ Section Objectives
- ❑ Contracts
- ❑ Formats
- ❑ Types of Contracts
- ❑ CM Contract Documents
- ❑ Modifying Contracts

- ❑ موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مدیریت طرح
- ❑ موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مشاوره
- ❑ موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مدیریت طرح در صنعت نفت

EJCDC contract documents for CM



Construction Manager as Advisor (22)

Construction Manager at Risk (CMAR) (28)

EJCDC contract documents for CM

Construction Manager as Advisor (CMA)

Construction Manager as Advisor Series (CMA-Series): This family of documents, adapted from the C-Series and other EJCDC document families, is intended for projects involving an owner-hired construction manager serving alongside the owner-hired engineer. The CMA-Series includes prime contract documents, solicitation documents, construction subcontract owner-construction manager agreement, a scope of services for the owner-engineer agreement, bonds, administrative forms, and a commentary.

- CMA-050 Bidding Procedures and Construction Contract Documents
- CMA-051 Construction Manager's Letter to Owner Requesting Instructions Concerning Bonds and Insurance
- CMA-052 Owner's Instructions to Construction Manager Concerning Bonds and Insurance
- CMA-111 Advertisement for Bids for Construction Contract
- CMA-200 Instructions to Bidders for Construction Contract
- CMA-410 Bid Form for Construction Contract
- CMA-500 Agreement between Owner and Engineer for Professional Services (when Owner retains a Construction Manager as Advisor) and Exhibits
- CMA-501 Agreement between Owner and Construction Manager as Advisor
- CMA-510 Notice of Award
- CMA-520 Agreement between Owner and Contractor for Construction Contract: Stipulated Price
- CMA-523 Construction Subcontract
- CMA-525 Agreement between Owner and Contractor for Construction Contract: Cost-Plus-Fee
- CMA-550 Notice to Proceed
- CMA-620 Application for Payment
- CMA-625 Certificate of Substantial Completion
- CMA-626 Notice of Acceptability of Work
- CMA-700 Standard General Conditions of the Construction Contract
- CMA-800 Supplementary Conditions of the Construction Contract
- CMA-940 Work Change Directive
- CMA-941 Change Order
- CMA-942 Field Order
- **CMA-990 Construction Manager as Advisor (CMA): Full Set**

EJCDC contract documents for CM

Construction Manager at Risk (CMAR)

Construction Manager at Risk Series (CMAR-Series): 2023 Construction Manager at Risk Series is a comprehensive new set of documents – including contracts, bonds, contractor-procurement documents, and administrative forms – intended for use on projects in which the owner retains a construction manager at risk to provide preconstruction services and then construct the project.

- CMAR-050 Selection Procedures and Construction Contract Documents
- CMAR-051 Letter from Owner's Advisor's to Owner Requesting Instructions Concerning Bonds and Insurance
- CMAR-052 Owner's Instructions to Owner's Advisor Concerning Bonds and Insurance
- CMAR-111 Advertisement of Request for Qualifications
- CMAR-200 Request for Qualifications
- CMAR-210 Statement of Qualifications
- CMAR-400 Request for Proposals
- CMAR-422 Proposal and Exhibit
- CMAR-430 Proposal Bond
- CMAR-500 Agreement between Owner and Engineer for Professional Services (When Owner Retains a Construction Manager at Risk) and Exhibits
- CMAR-510 Notice of Award
- CMAR-523 Construction Subcontract
- CMAR-525 Agreement between Owner and Construction Manager at Risk, including Agreement Exhibits
- CMAR-545 Work Authorization and Exhibit
- CMAR-620 Application for Payment and Exhibits
- CMAR-625 Certificate of Substantial Completion of the Work
- CMAR-626 Notice of Acceptability of the Work
- CMAR-700 Standard General Conditions of the Construction Manager at Risk Contract
- CMAR-800 Supplementary Conditions of the Construction Manager at Risk Contract
- CMAR-940 Work Change Directive
- CMAR-941 Change Order
- CMAR-942 Field Order
- CMAR-943 Contract Amendment
- **CMAR-990 Construction Manager at Risk (CMAR): Full Set**

EJCDC contract documents for CM

ejcdc.org/product-category/ejcdc-construction-manger-as-advisor/

EJCDC® ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

HOME FAQS STORE LEGAL PRESS RELEASES

Construction Manager as Advisor

The EJCDC® Construction Manager as Advisor (CMA) document series is intended for projects in which the Owner's primary representative during construction will be the Construction Manager as Advisor (CM). The series is an alternative to the use of the EJCDC Construction Series, on projects in which Engineer that prepared the design subsequently serves as the Owner's construction contract administrator. The Construction Manager as Advisor Series of documents clarify the respective roles and responsibilities of the Engineer and Construction Manager as Advisor recognizing the contributions each makes to the design and delivery of a construction project. The CMA-Series is comprised of contract documents, administrative forms, bonds, and bidding/procurement documents.

EJCDC contract documents for CM

CMA-990 Construction Manager as Advisor (CMA): Full Set

$1,700.00

- 1 +

Add to cart

Description

EJCDC® CMA-990, Construction Manager as Advisor (CMA) document series, Full Set includes a zip file with all 21 CMA documents that are specific to the series plus six additional C-Series document.

EJCDC contract documents for CM

ejcdc.org/product-category/construction-manager-at-risk-cmar/

EJCDC® ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

HOME FAQS STORE LEGAL PRESS RELEASES

Construction Manager at Risk (CMAR)

The EJCDC Construction Manager at Risk (CMAR) document series is intended for projects in which the owner retains a construction manager at risk (CMAR) to provide preconstruction services and then construct the project. The Construction Manager at Risk method of delivering projects evolved from traditional design-bid-build by involving the construction contractor early in the project. The new EJCDC CMAR Series is suitable for both public and private work. The series features several documents used for the project owner's selection of the CMAR, such as a model Request for Qualifications, Statement of Qualifications, and Request for Proposals. The CMAR Series is offered for those projects where an alternative is appropriate—most notably when construction expertise is needed during the design phase, and fast-tracking of work packages will allow for early completion and cost-effective construction. The 2023 CMAR documents are modeled after their industry-standard counterparts in the EJCDC 2018 Construction Series documents but have been customized to address the nuances of a CMAR project.

EJCDC contract documents for CM

CMAR-990 Full Set of Construction Manager at Risk Documents

$2,700.00

- 1 +

Add to cart

EJCDC contract documents for CM

E-582 Model Form of Agreement Between Owner and Program Manager

$254.00

- 1 +

Add to cart

Description

This document is used when the Owner engages a Program Manager to assist Owner with the management of the Program as set forth in this Agreement. This Agreement sets forth the general terms and conditions that shall govern the relationships and performance of Owner and Program Manager with respect to the Program.

ConsensusDocs contract documents for CM

800 SERIES Program Management

800 Owner and Program Manager Agreement
A "pure agent/PM," not at risk agreement, with design and construction contracts signed by Owner or PM acting as Owner's agent. PM may replace Owner's facilities staff to oversee a project.

810 Owner and Owner's Representative Agreement
Agreement between an Owner and a person/entity acting as an independent contractor, who serves as the Owner's authorized representative, assuming the Owner retains an Architect-Engineer and a Constructor.

812 Interim Directed Change
Issued by Owner to Trade Contractor in the absence of agreement on price and time for changes in the trade contract work.

813 Change Order
Formalizes changes and make adjustments to time and price.

814 Certificate of Substantial Completion
Used to establish the date of substantial completion.

815 Certificate of Final Completion
Used to establish the date of final completion.

820 Owner and Commissioning Authority Agreement
Contract terms specific to commissioning authority services.

830 Owner And Construction Manager As Agent Agreement (CM Provides General Condition Items)
This agreement may be used with the construction management process when the Owner awards all trade contracts. Replaces the previously-published ConsensusDocs 801 contract.

831 Owner and Construction Manager as Agent Agreement (No General Conditions Provided)
The CM does not provide the General Condition Items. Replaces the previously-published ConsensusDocs 801 contract.

840 Agreement Between Owner and Design Professional (Owner Hires or Acts as Its Own CM)
This agreement may be used with the construction management process when the Owner awards all trade contracts. Replaces the previously-published.

842 Owner and Energy Consultant
Contract terms specific to energy consulting services.

850 Owner and Trade Contractor Agreement
Forms legal relationship between Owner and each Trade Contractor, who becomes prime to the Owner.

ConsensusDocs contract documents for CM

500 SERIES Construction Manager At-Risk

500 Owner and Construction Manager Agreement (GMP with Preconstruction Services Option)
This integrated agreement and general conditions document includes an option for preconstruction services. This is a CM-at-Risk agreement.

500.1 GMP & Completion Dates
Additional terms and conditions for use with the ConsensusDocs 500.

510 Owner and Construction Manager Agreement (Cost of Work with Preconstruction Services Option)
Forms an integrated agreement and general conditions contract between the Owner and the Construction Manager performing work on a cost of the work plus a fee basis without a GMP.

525 Change Order/Construction Manager Fee Adjustment
A convenient, standard change order or construction manager fee adjustment to be used for projects built under the Construction Management method of contracting.

541 Addendum to Agreements Between Owner and Construction Manager and Between Owner and Design Professional for Design-Assist Services
Creates a contractual structure to better coordinate design professionals, construction managers (CM), and trade contractors in the design development phase.

Modifying Contracts

ACEMI

Modifying contracts

- **Pre-printed forms** have become **standard** in the construction industry.

- The **provisions** of each form are **interrelated** with the **provisions of other forms** in **"families"** of standardized documents.

- It is **beyond the scope** of this manual to suggest areas **where forms** can be **modified**.

- The following is an **outline of considerations** when modifying a standard form contract.

Modifying contracts

CONTRACT MODIFICATION PROCESS

1. Seek legal counsel and be thoroughly familiar with the system being implemented by the forms.
2. Ensure that modifications are properly coordinated with the provisions of other relevant project documents.
3. Think ahead about how the modifications will be received (provided new graphic).
4. Place accountability with the party that controls the risk and avoid duplicative/overlapping responsibilities.
5. Have the modifications reviewed and edited by experienced staff before finalizing for approval.

More information about contracts can be found in the **CMAA Contract Administration Guidelines**.

موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مدیریت طرح

شماره ۱۰۵/۷۳۵-۵۴/۲۰۱
تاریخ ۱۳۸۰/۱/۲۸
نشریه ۲۴۱۲۱

موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مدیریت طرح

بسمه تعالی

ریاست جمهوری
سازمان مدیریت و برنامه‌ریزی کشور
دفتر رئیس سازمان

به‌دستگاههای اجرایی، واحدهای خدمات مدیریت طرح، واحدهای خدمات مشاوره و پیمانکاران	شماره : ۱۰۵/۷۳۵-۵۴/۲۰۱ تاریخ : ۱۳۸۰/۱/۲۸

موضوع : موافقتنامه و شرایط عمومی همسان قراردادهای خدمات مدیریت طرح

به استناد آیین‌نامه استانداردهای اجرایی طرحهای عمرانی موضوع ماده ۲۳ قانون برنامه و بودجه و در چهارچوب نظام فنی و اجرایی طرحهای عمرانی کشور (مصوبه شماره ۲۴۵۲۵/ت ۱۴۸۹۸هـ مورخ ۱۳۷۵/۴/۴ هیأت وزیران) به پیوست مجموعه موافقتنامه و شرایط عمومی همسان قراردادهای خدمات مدیریت طرح، همراه با مقررات ذیربط، از نوع گروه اول ابلاغ می‌شود تا از تاریخ ابلاغ برای انعقاد قراردادهای مدیریت تهیه و اجرای طرحها با واحدهای خدمات مدیریت طرح به‌اجرا درآید.

رعایت کامل مفاد این نشریه از طرف دستگاههای اجرایی، واحدهای خدمات مدیریت طرح، واحدهای خدمات مشاوره، پیمانکاران و عوامل دیگر در طرحهای عمرانی الزامی است.

محمدرضا عارف
معاون رئیس جمهور و رئیس سازمان

موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مشاوره

شماره ۱۴۰۱/۴۷۶۶۴۵
تاریخ ۱۴۰۱/۰۹/۰۷
نشریه ۳۴۱۸

ACEMI

موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مشاوره

باسمه تعالی

ریاست جمهوری
سازمان برنامه و بودجه کشور
رئیس سازمان

بخشنامه به دستگاه های اجرایی و مهندسان مشاور	شماره : ۱۴۰۱/۴۷۶۶۴۵ تاریخ : ۱۴۰۱/۰۹/۰۷

موضوع: موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مشاوره

به استناد ماده (۳۴) قانون احکام دائمی برنامه‌های توسعه کشور و آئین‌نامه اجرایی آن، موضوع تصویب‌نامه شماره ۲۵۲۵۴/ت۵۷۶۹۷ هـ مورخ ۱۴۰۰/۰۳/۰۸ هیات محترم وزیران و ماده (۲۳) قانون برنامه و بودجه، به پیوست، مجموعه موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مشاوره، بصورت لازم الاجرا، ابلاغ می‌گردد تا برای انعقاد قراردادهای خدمات مشاوره در امور مطالعات کارهای ساختمانی، رسته راه و ترابری، رسته آب و فاضلاب، طرح جامع و تفصیلی شهرها، طرح‌های توسعه و عمران جامع ناحیه، طرح هادی روستایی، مرحله اول بهسازی لرزه‌ای پل‌های موجود، مرحله اول بهسازی لرزه‌ای ساختمان‌های موجود، طرح بهسازی لرزه‌ای ساختمان‌های موجود و خدمات مشاوره در دوره ساخت و تحویل کار (خارج از حوزه فناوری اطلاعات)، موضوع بند (۱) بخشنامه شماره ۱۰۰/۳۱۳۹۱ مورخ ۱۳۸۹/۰۴/۲۶، از تاریخ ۱۴۰۲/۰۱/۰۱ مورد عمل قرار گیرد.

معاونت فنی، امور زیربنایی و تولیدی تا مدت ۶ ماه پس از لازم‌الاجرا شدن این بخشنامه، موارد اصلاحی (احتمالی) را اعمال و از طریق پایگاه اطلاع‌رسانی Nezamfanni.ir اعلام می‌نماید.

این بخشنامه، جایگزین بخشنامه شماره ۱۰۵/۸۴۲-۵۴/۲۴۶۰ مورخ ۱۳۷۹/۰۴/۲۹ می‌باشد.

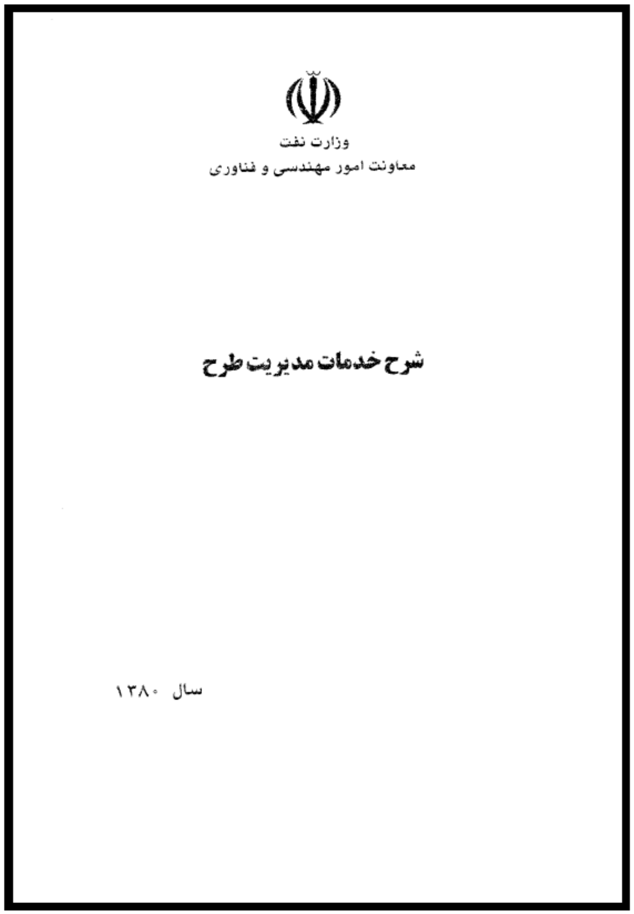
سید مسعود میر کاظمی

شرح خدمات مدیریت طرح در صنعت نفت

نشریه ۰۰۵

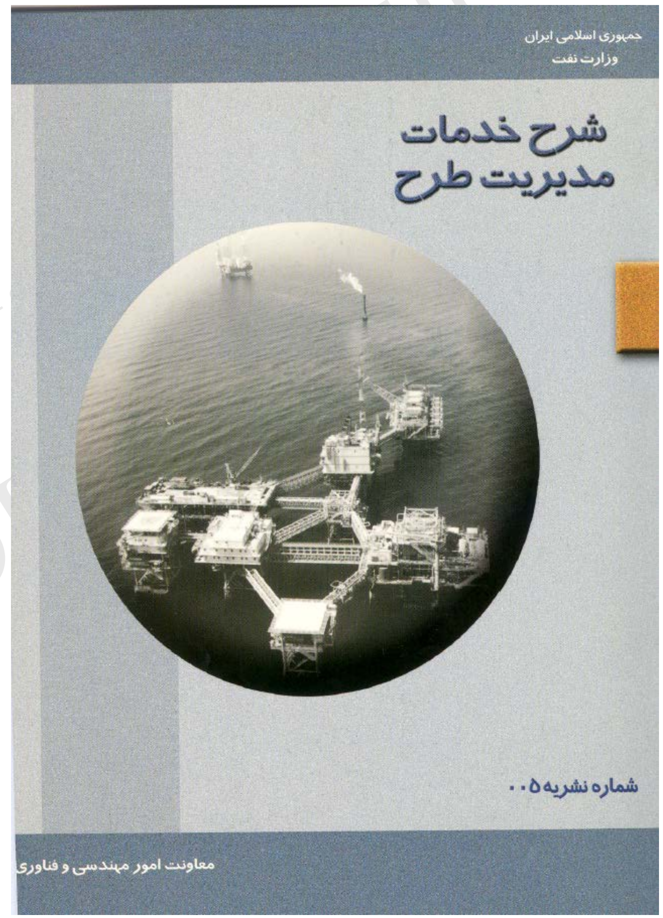
تاریخ ۱۳۸۰

شرح خدمات مدیریت طرح – نشریه ۰۰۵


وزارت نفت
معاونت امور مهندسی و فناوری

شرح خدمات مدیریت طرح

سال ۱۳۸۰



شرح خدمات مدیریت طرح – نشریه ۰۰۵

مقدمه

بسمه تعالی

نظام اجرای طرحهای صنعت نفت که طی بخشنامه شماره ۱۵۰۷-۳۲/۸ مورخ ۷۸/۶/۸ از سوی وزیر محترم نفت ابلاغ شده است همسو با پیشرفته ترین روشهای اجرایی ، روش چهار عاملی را نیز در سازمان اجرایی طرحها مد نظر قرار داده است .

بنابراین علاوه بر سه عامل کارفرما ، مشاور و پیمانکار ، عامل مدیریت طرح نیز وارد صحنهٔ اجرا می شود تا ضمن جلوگیری از گسترش سازمان کارفرما و هماهنگی در اختیارات و مسئولیتها ، تأخیر در اجرای کارها ناشی از مشکلات سازمانی نیز مرتفع گردد. این عامل در بند ۲-۳ از فصل اول نظام اجرای طرحهای صنعت نفت پیمانکار مدیریت (Management Contractor = Mc) نامیده شده است . در برخی منابع نیز (Project Management = PM) آمده است .

صرفنظر از نامگذاری ، تعریف و روش انتخاب آن از طرف مجری و همچنین اختیارات کارفرمائی غیرقابل واگذاری ، در کلیات این شرح خدمات ، از نظام اجرایی طرحهای صنعت نفت استفاده شده است و تهیه شرح وظایف و اختیارات قابل واگذاری مجری طرح بنام شرح خدمات مدیریت طرح در این نشریه مندرج است . مجریان طرحها می توانند با اعمال تغییراتی متناسب با نوع طرح و یا پروژه از آن در قراردادهای مربوطه استفاده نمایند . در خاتمه انتظار دارد مدیران عامل محترم شرکتها ، مدیران مهندسی ، مجریان طرحها و کارشناسان محترم صنعت نفت با مطالعهٔ دقیق شرح خدمات ، این معاونت را از پیشنهادهای سازنده خود بهره‌مند نمایند .

معاونت مهندسی و فناوری

زمستان ۱۳۸۰

موافقت‌نامه و شرایط عمومی همسان قراردادهای خدمات مدیریت طرح در صنعت نفت

شماره ۲۸/۱۰۰۱۱۶۷
تاریخ ۱۳۸۳/۰۵/۱۹

شرح خدمات مدیریت طرح – نشریه ۰۰۵


تاریخ : ۱۹/۵/۸۲
شماره : ۲۸/۱-۱۱۶۷
پیوست :

جمهوری اسلامی ایران
وزارت نفت

بسمه تعالی

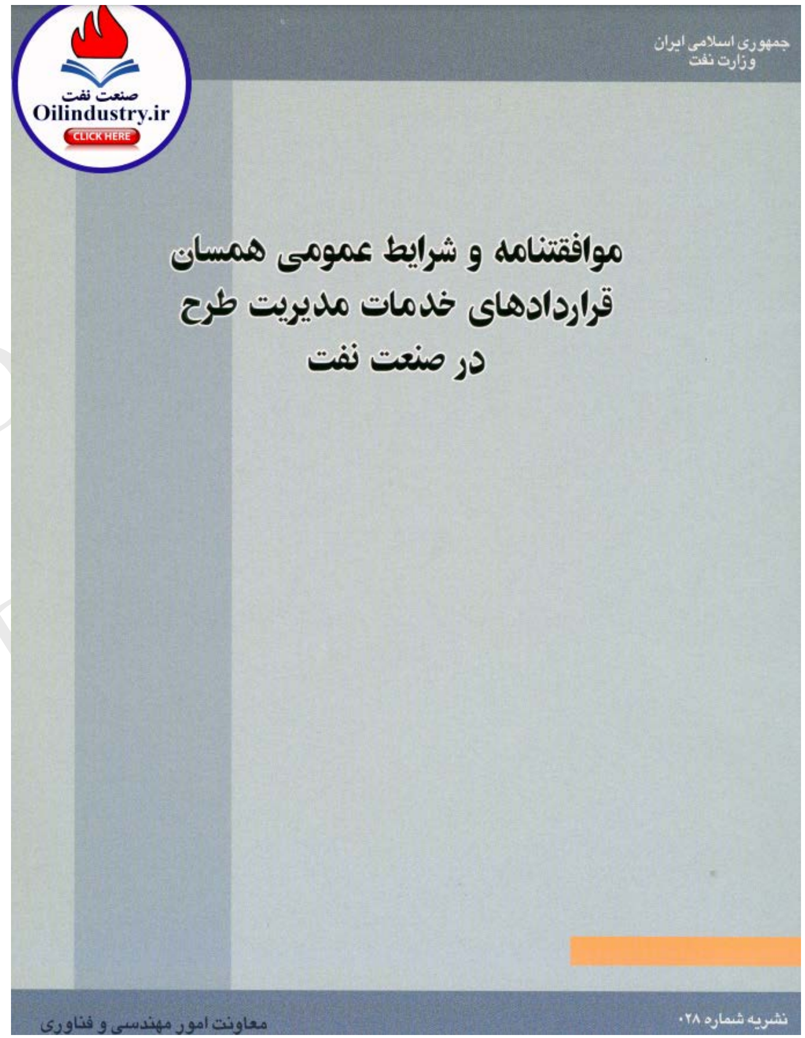
به : معاونین محترم وزارت نفت
: مدیران عامل محترم شرکتهای اصلی و فرعی

موضوع : موافقتنامه و شرایط عمومی قرارداد

به پیوست موافقتنامه و شرایط عمومی قراردادهای خدمات مدیریت طرح صنعت نفت ابلاغ می گردد ، تا برای قراردادهای خدمات مدیریت طرح که بعد از ابلاغ این بخشنامه منعقد می شود ، مورد استفاده قرار گیرد.

استفاده از این موافقتنامه و شرایط عمومی آن برای کلیه واحدهای اجرایی تابعه وزارت نفت الزامی است.

بیژن زنگنه
وزیر نفت



حرفه مدیریت ساخت

(سند Capstone، از مراجع اصلی اخذ مدارک CMAA)

بخش سوم: استراتژی‌های تدارکات، مناقصه و پرداخت در مدیریت ساخت

ارائه دهنده:

سید محمدرضا علوی‌پور

(PhD, PMP, CMIT)

CMAA Authorized Trainer

دانشگاه Illinois Tech آمریکا

ACEMI

What we will learn?

- ❑ Section Objectives
- ❑ Procurement
- ❑ Methods of Selection
- ❑ Compensation For CMs
- ❑ Factors For Determining Compensation

❑ دستورالعمل ارجاع کار و انعقاد قرارداد با واحدهای خدمات مدیریت طرح

Section Objectives

ACEMI

Section objectives

- **Review** the advantages and disadvantages of **each method of selection** used to assemble the project team.
- Understand the **components** of
  1. The selection process,
  2. The selection committee,
  3. Price vs. Qualifications-based selection, and
  4. The cm selection process.
- Explore
  1. The **various methods** for compensating a construction manager and
  2. The factors that may apply.

Procurement

Introduction

- **Procurement** is the process of evaluating and selecting
  1. Goods and
  2. Services.
- This process should be carefully managed to ensure that the **appropriate selections** are made based on **factors** such as quality, speed, cost, and risk.
- It's also helpful to **understand**

  how the **owner uses** a procurement process to **select the CM**.

  - Then, depending on **when the CM joins** a project,

    the **CM** may be **involved** in the various procurement processes.

Methods of Selection

Introduction

- **Early** in the **process**,

  the **owner** must decide **which approach** would be most appropriate for the project:

  the traditional three-party (owner-designer-contractor), a D-B, a construction management method, or some combination.

- The **owner's selection** of a project delivery system sets the **framework** for

  the roles and responsibilities of

  1. The **various members** of the project team and
  2. The **related terms and conditions** of their respective contracts.

- In general, the project requirements and crucial characteristics should determine the **delivery system**.

Owner criteria for the project team

- As the owner selects a **desired project delivery system**,

  it **establishes criteria** for

  1. The **different members** of the project **team**,
  2. Setting the **framework** for the **selection** process.

Owner criteria for the project team

- The **owner considers** the following criteria:
  - Project goals
  - Owner’s organization and structure
  - Legal requirements (licenses, qualification to do business)
  - Financial/budget
  - Bid vs. negotiation issues
  - Professional services issues
  - Methods of compensation (lump sum, cost plus, or other)
  - Risk allocation and insurance

Owner criteria for the project team

- Once selected,

  the **CM** can have a **significant impact** on

  1. The **final structure** of the **project team** and
  2. The **actual** project **delivery systems** used

  by **providing information** to the owner regarding the criteria.

Owner selection process

- The **actual process** used by the **owner** for the selection and procurement of **professional services** will be determined by
  1. The owner's criteria and
  2. Related legal and organizational issues.

ACEMI

Owner selection process

- The owner will need to decide:
  - Whether to **advertise** the need for CM services.
  - Whether to require **interested CMs** to **pre-qualify** by furnishing information concerning their qualifications and experience.
    1. The **format** of the **RFP** and
    2. The required content and
    3. Time constraints for the proposals.
  - Whether to **hold interviews** with the **most qualified** CM candidates.
  - To develop **selection criteria** for decision-making

The selection committee

- A **CM selection committee** should be formed from the **owner's staff early** in the selection process

  so that the **committee can learn** as much as possible about the project and the owner's expectations of the CM.

- The **committee** will be **comparing**

  1. The **approaches offered** by several firms,
  2. Their skill levels, and the experience of their personnel,
  3. With the expectations and needs of the **project** and the **owner's organization**.

- The committee should include the individual on the **owner's staff** who will be **responsible** for the **project**.

ACEMI

The selection committee

- While it is **not necessary** that all members of the **committee** be **familiar** with the design and construction **process**,

  it is **highly recommended** to ensure proper selection.

  - If the owner does **not have an individual** on its staff that can provide this expertise,

    it may be **appropriate** to **retain** a **consultant** for the selection process.

- Individuals such as **senior members** of the engineering or architectural community can be used for this purpose.
- It is also important that the committee be **free** from any **conflict** of interest in the selection of a CM.

Price vs. qualifications-based selection (QBS)

- In some instances, due to the owner's preference or statutory requirements,

  CMs may be asked to submit competitive bids in response to

  1. an RFP or
  2. advertisement.

  - This is **not** a **preferred method** of procuring construction management services and
    - CMs have been actively involved in **changing such statutory requirements** as well as through litigation to establish that
      - construction management services are **professional services akin** to those of architects and engineers,

        thus should be selected by competitive negotiation procedures.

Price vs. qualifications-based selection (QBS)

- For all federal government projects,

  The **Brooks Act of 1972** established that the **professional services** of architects and engineers

  must be **competitively negotiated** rather than bid.

  This is also referred to as a QBS.

Price vs. qualifications-based selection (QBS)

- The **reasons** are:
  - The required level and nature of services

    cannot be **accurately defined** in order to provide the basis for a **competitive bid**.
  - The level of quality can vary from **firm** to **firm**.
  - Owners select their professional advisors (architects, engineers, and CMs) based on **subjective criteria** such as trust, confidence, and loyalty.

Price vs. qualifications-based selection (QBS)

- This is **further complicated** by the fact that many **RFPs** for construction management services **issued by owners** are
    incomplete and fail to take into consideration **entire categories of services** that **CMs may furnish**,
        but of which **owners are unaware**.
        - The **result** is an **RFP** that is defined in broad-based, sometimes **ambiguous**, terms.
            - ✓ Consequently, qualifications-based negotiated selection is **most appropriate** for construction management services.

The CM selection process

- Laws and regulations usually govern the **process of selection** for public work, and practices will **vary among the states**.
- The process, however, may generally follow **three (3) steps**:
  1. A statement of qualifications,
  2. A technical proposal, and
  3. A price proposal and fee negotiation.

  Then, Final Selection!

The CM selection process - A statement of qualifications

- One way that **owners reach** the CM community is to **advertise** a request for quotes (RFQ) to **invite** interested parties to **submit quotes** for a project.

- **Interested parties** then submit a statement of qualifications (SOQ) that describes, in general, the **qualifications of a firm** (or team of firms) to perform the required services.

The CM selection process - A statement of qualifications

- The SOQ often includes the following types of information:
  - Firm name and address
  - Types of services usually offered
  - Names of principals
  - Capability—The number of staff personnel organized by discipline
  - Experience—Description of similar work completed including date, size, and owner contact
  - Annual volume, backlog, and capacity
  - Past performance
  - Record of performance, i.e., cost control, quality, schedule, and safety

The CM selection process - A statement of qualifications

- Federal Standard Form SF330 Architect-Engineer Qualifications

  contains **substantially this same type** of information and is maintained by most firms doing federal projects.

ACEMI

The CM selection process - A statement of qualifications

- The **selection committee** evaluates the **firms' submissions** and **makes a judgment** as to which firms appear qualified to perform the services.
  - This will reduce the number of competing firms to what is commonly known as a **"shortlist."**

ARCHITECT-ENGINEER QUALIFICATIONS	OMB Control Number: 9000-0157 Expiration Date: 1/31/2027

Paperwork Reduction Act Statement - This information collection meets the requirements of 44 USC § 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. You do not need to answer these questions unless we display a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 9000-0157. We estimate that it will take 29 hours (25 hours for part 1 and 4 hours for Part 2) to read the instructions, gather the facts, and answer the questions. Send only comments relating to our time estimate, including suggestions for reducing this burden, or any other aspects of this collection of information to: U.S. General Services Administration, Regulatory Secretariat Division (M1V1CB), 1800 F Street, NW, Washington, DC 20405.

PURPOSE

Federal agencies use this form to obtain information from architect-engineer (A-E) firms about their professional qualifications. Federal agencies select firms for A-E contracts on the basis of professional qualifications as required by 40 U.S.C. chapter 11, Selection of Architects Engineers, and Part 36 of the Federal Acquisition Regulation (FAR).

The Selection of Architects and Engineers statute requires the public announcement of requirements for A-E services (with some exceptions provided by other statutes), and the selection of at least three of the most highly qualified firms based on demonstrated competence and professional qualifications according to specific criteria published in the announcement. The Act then requires the negotiation of a contract at a fair and reasonable price starting first with the most highly qualified firm.

The information used to evaluate firms is from this form and other sources, including performance evaluations, any additional data requested by the agency, and interviews with the most highly qualified firms and their references.

GENERAL INSTRUCTIONS

Part I presents the qualifications for a specific contract.

Part II presents the general qualifications of a firm or a specific branch office of a firm. Part II has two uses:

1. An A-E firm may submit Part II to the appropriate central, regional or local office of each Federal agency to be kept on file. A public announcement is not required for certain contracts, and agencies may use Part II as a basis for selecting at least three of the most highly qualified firms for discussions prior to requesting submission of Part I. Firms are encouraged to update Part II on file with agency offices, as appropriate, according to FAR Part 36. If a firm has branch offices, submit a separate Part II for each branch office seeking work.

2. Prepare a separate Part II for each firm that will be part of the team proposed for a specific contract and submitted with Part I. If a firm has branch offices, submit a separate Part II for each branch office that has a key role on the team.

INDIVIDUAL AGENCY INSTRUCTIONS

Individual agencies may supplement these instructions. For example, they may limit the number of projects or number of pages submitted in Part I in response to a public announcement for a particular project. Carefully comply with any agency instructions when preparing and submitting this form. Be as concise as possible and provide only the information requested by the agency.

DEFINITIONS

Architect-Engineer Services: Defined in FAR 2.101.

Branch Office: A geographically distinct place of business or subsidiary office of a firm that has a key role on the team.

Discipline: Primary technical capabilities of key personnel, as evidenced by academic degree, professional registration, certification, and/or extensive experience.

Firm: Defined in FAR 36.102.

Key Personnel: Individuals who will have major contract responsibilities and/or provide unusual or unique expertise.

SPECIFIC INSTRUCTIONS

Part I - Contract-Specific Qualifications

Section A. Contract Information.

1. Title and Location. Enter the title and location of the contract for which this form is being submitted, exactly as shown in the public announcement or agency request.

2. Public Notice Date. Enter the posted date of the agency's notice on the Federal Business Opportunity website (FedBizOpps), other form of public announcement or agency request for this contract.

3. Solicitation or Project Number. Enter the agency's solicitation number and/or project number, if applicable, exactly as shown in the public announcement or agency request for this contract.

Section B. Architect-Engineer Point of Contact.

4-8. Name, Title, Name of Firm, Telephone Number, Fax (Facsimile) Number and E-mail (Electronic Mail) Address. Provide information for a representative of the prime contractor or joint venture that the agency can contact for additional information.

AUTHORIZED FOR LOCAL REPRODUCTION

STANDARD FORM 330 (REV. 7/2021) PAGE 1 OF INSTRUCTIONS
Prescribed by GSA - FAR (48 CFR) 53.236-2(b)

The CM selection process - A statement of qualifications

Criteria for short-listing

- Overall/specialized experience
  - ✓ Scheduling
  - ✓ Cost estimating
  - ✓ Inspection
  - ✓ Value engineering
  - ✓ Design
  - ✓ Construction
  - ✓ Etc.
- Depth of organization
  - ✓ Present workload
  - ✓ Available personnel
  - ✓ Key personnel
  - ✓ Recruiting requirements

The CM selection process - A statement of qualifications

Criteria for short-listing

- References/reputation
  - ✓ Current clients
  - ✓ Past clients
- Services offered
- Financial stability
  - ✓ Overall financial strength
  - ✓ Financial adequacy for the project

The CM selection process – Technical proposal

- Those that are judged to be **qualified** may then be sent an RFP.
- The RFP **provides prospective respondents** with a detailed description of the project including
  - Project budget,
  - Major constraints,
  - Unusual services that may be required,
  - Specific goals of the owner, and
  - Information regarding the method of compensation.

ACEMI

The CM selection process – Technical proposal

- **Interested parties** will submit a technical proposal that provides information about a firm's qualifications and intentions to perform the **services desired.**

- The technical proposals are usually written for a **specific project**.

The CM selection process – Technical proposal

Technical Proposal content

- Feasibility studies
- Preliminary drawings
- Preliminary design criteria
- Preliminary specifications
- Owner's operating requirements
- Owner's contracting requirements
- Design schedules
- Completion requirements
- Location of jobsite
- Appropriation estimate
- Any other owner requirement

The CM selection process – Technical proposal

Technical Proposal content

- Description of overall approach
- Services in field office
- Services in head office
- Proposed contract package
- Preliminary construction schedule
- Preliminary procurement schedule
- Proposed value engineering program
- Cost and progress control system
- Proposed project organization
- Resumés of key personnel

The CM selection process – Technical proposal

Example RFPs

The documents on this page are example language used in RFPs and RFQs with a requirement or preferences for the CCM from various owners. The intent of publicizing these documents is to help owners add the requirement or preference into their own documents. The specific information relating to the CCM is highlighted on each document:

Education

- Arizona State University
- Arlington County Public Schools
- Austin Independent School District
- DeKalb County School District
- Kuspuk School District
- Los Angeles Community College
- Los Angeles Unified School District
- North Ridgeville City Schools
- Parkrose School District
- Pennsylvania State University
- School Building Authority of West Virgini
- Shelby County School District

Government

- New York City Department of Design and Construction
- New York City Housing Authority
- New Mexico Spaceport Authority
- Saint Louis Science Center
- State of Oklahoma Department of Central Services
- Smithsonian Institution
- U.S. Army Corps of Engineers
- U.S. Dept. of Veterans Affairs
- U.S. General Services Administration

Healthcare

- MetroHealth System
- NYC Health + Hospitals

Private

- Amazon
- Motorola
- Northrop Grumman
- PPL Electric Utilities

Utility

- City of Carlsbad
- City of Coronado
- City and County of San Francisco Department of Public Works
- City of Danville
- City of East Palo Alto
- City of El Cajon
- City of Ft. Lauderdale
- City of Fort Worth
- City of Half Moon Bay
- City of Hampton
- City of Houston Public Works
- City of Long Beach
- City of New Orleans
- City of Rockville
- City of Seattle
- Clark County Public Works
- County of Fairfax
- County of Nassau
- Desert Recreation District, North Shore
- El Dorado Irrigation District
- Loudoun County Department of Public Works
- Prince William County Service Authority
- Sacramento Regional County Sanitation District
- Town of Christiansburg

Transportation

- Bay Area Rapid Transit
- Columbus Regional Airport Authority
- Connecticut Department of Transportation
- Los Angeles County Metropolitan Transportation Authority
- Maryland Department of Transportation
- Massachusetts Bay Transportation Authority
- ...setts Port Authority
- ...nsit
- ...rtment of Transportation, Federal Transit Administration
- ...epartment of Transportation
- ...ailway Express

The CM selection process - Price proposal and fee negotiation

- The price proposal and fee preparation stages are an essential part of the **technical proposal** that demands that

  the **preparer understand**

  1. All the elements of the contract and
  2. The type of contract vehicle to be utilized by the parties.

The CM selection process - Price proposal and fee negotiation

- In preparing a comprehensive and competitive price proposal,

  the **CM must understand** all the elements of the contract scope and prepare a proposal that includes

  1. All direct labor costs;
  2. All indirect cost rates (such as fringe benefits, labor overhead, material overhead, G&A, etc.;
  3. All applicable cost proposals from each subcontractor/sub-awards/consultants;
  4. All travel, material, equipment, supplies, and other direct costs; and
  5. The profit or fee percentage proposed and the base to which the rate applies).

The CM selection process - Price proposal and fee negotiation

- In many instances,

  the **owner** will **want each proposal**

  1. Broken down by cost and
  2. Be prepared for each major task along with
  3. A supporting rationale.

- In **addition to the cost items** of the proposal, it is essential that

  the narrative prepared as part of the proposal **address**

  1. All the critical issues required by the owner and
  2. All the contract requirements.

The CM selection process – Criteria for final selection

Criteria for final selection

- Understanding of owner's goals
  - ✓ Understanding of project requirements
  - ✓ Understanding of site conditions
  - ✓ Understanding of special features
  - ✓ Anticipation of potential problems
- Staff
  - ✓ Names and backgrounds of key personnel
  - ✓ Prior experience of key personnel
- Familiarity with locality
  - ✓ Local regulations
  - ✓ Availability of local materials, labor, equipment

ACEMI

The CM selection process – Criteria for final selection

Criteria for final selection

- Specific management approach
  - ✓ Overall approach
  - ✓ Preliminary schedules
  - ✓ Proposed organization
  - ✓ Specific services provided
  - ✓ Specific services not provided
- Fees and compensation
  - ✓ Fee
  - ✓ Reimbursable costs
  - ✓ Non-reimbursable costs
  - ✓ Other arrangements

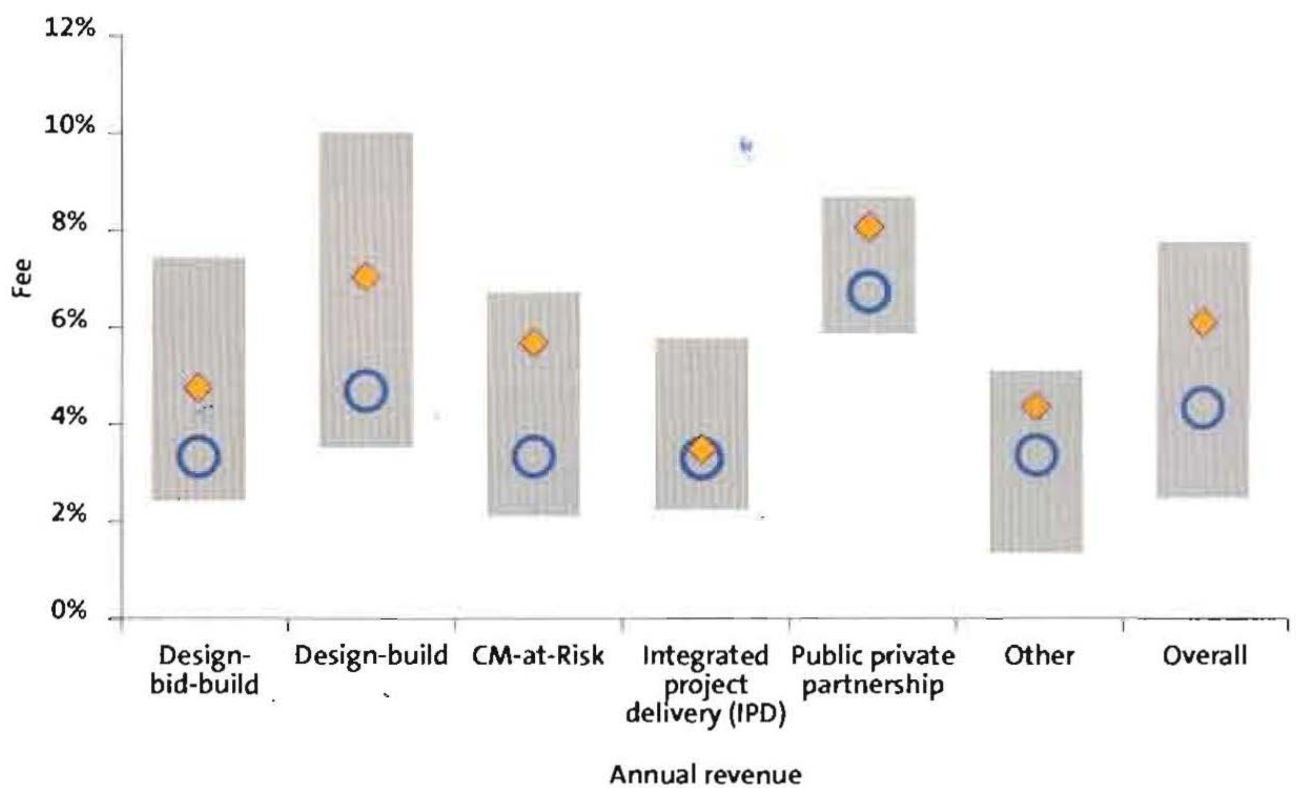
Compensation For CMs

Compensation for CMs

- There are **no accepted** industry-wide standards or guidelines for determining **reasonable** and **fair compensation** for CM services.
  - **CM costs** are typically **driven** by the level and types of **services** requested/required.
  - They are largely labor and therefore, are directly **proportional** to the number of hours and level of experience spent on the project.
  - Like many other items involved in a construction project, **CM costs** can be **benchmarked** as a percentage of construction.
    - ✓ However, these costs **vary widely** on a percentage-of-construction basis by project type, size, and level of service.

Compensation for CMs

Typical CM/PM fees by project delivery method



The grey-shaded bars represent the span from the 25th percentile to the 75th. The blue circles represent the median values and the orange diamonds represent the averages.

ACEMI

Compensation for CMs

- **Industry surveys** have shown that the **cost of such services** will typically range from 3%-10% of the **total estimated cost of construction**.
  - Generally, the **larger the total cost** of construction, the **lower the percentage**; however, **project complexity** is also a contributing factor.
    - ✓ These costs should be considered part of the **normal expected cost** for
      - planning,
      - implementing, and
      - constructing

      a successful project, **not an additional expense** to the expected project budget.

Compensation for CMs

- The **cost of CM services** for a specific project will **depend on** the following factors:
  - Form of CM contract (agency or at-risk)
  - A point in the project timeline when the CM is hired
  - Scope of services to be provided
  - Relationship of the CM to other project participants
  - Risks and authority assumed by the CM
  - Skills and number of staff resources required
  - Cost of labor, overhead, allowance for profit, and direct expenses to be paid by the owner
  - Project scope and complexity
  - Estimated construction costs
  - Expected duration on the project

ACEMI

Compensation for CMs

- **Several methods** are recognized and commonly used in the compensation of firms for professional construction management services:
  1. Cost Reimbursement
  2. Fixed Fee
  3. Cost Plus Fixed Fee
  4. The fee as Percentage of Construction Costs
  5. GMP

Compensation for CMs

- The **compensation method** is determined through negotiation between the owner and the CM as to

  the **proper level** of staffing for the specific tasks that

  constitute the **CM's scope of services**.

Cost reimbursement

- This method of compensation is **one of the most used** forms of compensation associated with agency CM, particularly for projects in the **public sector**.
- This method is based on the **CM preparing** an **estimate** of
  1. Its labor costs and
  2. Direct expenses, and
  3. The application of one or more multipliers to the estimated cost of various labor classifications for overhead and profit.
     - Regarding the definition of labor costs, the **multiplier** can be applied to labor only, or to **total payroll costs** (labor plus payroll taxes and insurance).
     - In some cases, the **CM's profit margin** may be **included** in the multiplier or separately identified by another multiple.
       - ✓ However, the **CM's profit** is sometimes **separately identified** as a fixed percentage.

See the Cost Plus Fixed Fee section.

Cost reimbursement

- **Reimbursable expenses** normally include reasonable actual expenditures made by the **CM**, its **employees**, or its **professional consultants** in the interest of the project.
- The CM normally develops its **cost estimate** for reimbursable expenses based on
  1. The understanding it has with the owner,
  2. Services to be provided,
  3. Its project plan and
  4. Staffing requirements.
- The CM should include these as **part of its proposal prior** to formal contracting.
  - In some cases, it is **not unusual** for the **estimated reimbursable expenses** to be **capped** with the understanding that **increases may only** be granted for circumstances **beyond the control** of the **CM**.

Cost reimbursement

- Some contracts allow a **separate fee**,

  usually in the **range of 5%-10%**, to be **applied to** the **cost of reimbursable expenses** in order to

  cover the **CM's cost of handling** the administration of such expenses.
- Examples of **common reimbursable expenses** recognized during the **construction phase** include

  travel and living expenses, relocation costs, subsistence to key employees, communications, computer equipment, computer software, vehicles, fees, permits, reproduction and mailing, professional liability insurance and other insurance costs for coverage beyond the normal limits carried by the CM, general conditions (including labor costs), and other reasonable field office-related expenses.

Cost reimbursement

- As **part of the contract**, projects may set an **overall cost limitation** for the CM's services for **each project phase**.
  - Cost limitations may also be **established** for specific services or tasks.
    - ✓ Such limitations of cost are **usually increased only when**
      1. The **scope** of CM services **changes** or
      2. The project **duration is extended** for reasons **beyond the control** of the CM.

Cost reimbursement

- **Payments** under this method of **CM compensation** are usually based on
    1. The actual labor hours and
    2. Direct expenses
        1. Expended by the CM staff and
        2. As authorized by the contract terms and conditions.
    - Depending on statutory requirements, **reasonable retention** of 5%-10% may be withheld by the owner until **substantial completion** of the project is achieved.
        - Thereafter, the retention is **substantially reduced** and **paid in full** when the project is considered to have **reached final completion**, as defined by the contract documents.

ACEMI

Cost reimbursement

- **Payments** are usually based on
  1. Salary Times Multiplier Plus Direct Expenses
  2. Billing rates

Cost reimbursement – Salary Times Multiplier Plus Direct Expenses

- A **typical cost-reimbursement** approach is based on

  a CM's direct salaries (actual salaries of the individuals working on the project)

  times a multiplier.

  - The **multiplier** is a number that is derived from the **sum** of

    1. The CM's **indirect salary costs** (such as FICA, unemployment insurance, and salary benefits) and
    2. **Overhead** costs (general and administrative office and other indirect costs)

    divided by the **total salaries paid**.

    - This **ratio** is used by the CM to **recover** these **costs**.

Cost reimbursement – Salary Times Multiplier Plus Direct Expenses

- An **agreed profit rate** is then **applied to** the product of the direct salary **times** the **multiplier**.
  - **Direct project expenses** (necessary and ordinary expenses, e.g. paper and pens, automobiles, travel, separate offices, furniture, computers, software, etc.) are **paid separately**.
    - ✓ Frequently, an administrative or handling charge may be made on the **direct expense.**

Cost reimbursement – Salary Times Multiplier Plus Direct Expenses

- The CM's **compensation schedule**
  1. Can cover the entire project period, or
  2. May be divided into two separate phases, pre-construction and construction.
- The **objective** in separating the costs is to
  1. Enable the **parties** to **better control** the CM's costs and
  2. **Account** for **differences** in the overhead expenses associated with the CM's permanent base of operation, versus its field activities.
- During the pre-construction phase, the **CM's staff resources** are usually corporate, branch, or home office base supplied.
  - The **multiplier** allowed for **such staff** is often greater than it is for **staff permanently** assigned to the **field**.

Cost reimbursement – Salary Times Multiplier Plus Direct Expenses

- **Certain** field construction office costs **associated** with an assignment are usually recognized as **reimbursable expenses**.
  - In **some cases**, part or all these costs may be **avoided** by the CM **when the owner provides** field office space, equipment, utilities, supplies, etc. **directly and at no cost** to the CM.
    - ✓ On occasion, the **owner may require** that the **construction contractor** provide **field office support services** for the **CM's field operations**, as part of a general-conditions requirement.
      - Such requirements would obviously
        1. **Reduce** the **CM's** normal expected **field overhead cost** and therefore,
        2. **Reduce** any **multiplier** applied to the cm's field labor cost for the construction phase.

Cost reimbursement – Salary Times Multiplier Plus Direct Expenses

- The **multiplier** for hourly labor costs actually used will most likely **depend** on
  - The size and duration of the project,
  - The scope of CM services,
  - The complexity of the project, and
  - Whether or not payroll expenses, fee margin, overhead, direct expenses, and other costs are to be
    1. included in the multiplier or
    2. identified separately.
  - ✓ The **owner** may require that the **multiplier be supported** by
    - Financial statements and/or
    - An audit of the CM's operations.

Cost reimbursement – Billing rates

- An **alternative** to the use of **salary times multiplier** is the use of classified billing rates.
  - **These rates** are typically based on average salaries for a **specified range** of employee skills, experience, and education.
  - An **amount of money** is added based on the CM's overhead and profit multiplier and the **resultant sum** is used for **all individuals** in that classification.
    - ✓ The **classifications** should be carefully **defined** to avoid confusion.

Cost reimbursement – Billing rates

- The CM may also incur **"reimbursable costs"** which are costs and expenses that are **charged direct** to the project.

- The **contract** should clearly indicate
  1. Allowable reimbursable **costs** and
  2. Allowable reimbursable **fees**
  3. How reimbursement should be **submitted**.

Fixed fee

- A fixed fee approach can be used **when** the **scope** of the CM's services is **clearly defined** and **understood** by the parties.
  - When this method is employed,
    1. A **fixed fee** is usually established for **services** during the pre-construction phase and
    2. A **separate fixed fee** is usually established for services during construction.

ACEMI

Fixed fee

- **Increases** to the fixed fees are **normally recognized** for services that **extend beyond** the anticipated completion date, for
  1. **Circumstances** or **delays** **beyond** the **control** of the **CM**, and
  2. **Increases** in the **scope of services** that were **not anticipated** when the contract was **signed**.
     - **Appropriate** terms and conditions should be included in the **CM agreement** to cover these situations.

ACEMI

Fixed fee

- When the **GMP form** of contract is used, there may be a **fixed fee** for the pre-construction phase.
  - The **fixed fee** is intended to cover the **cost of CM services** for the period prior to the **CM** preparing and rendering a **GMP** to the owner through the **pre-construction** period.
    - ✓ The **fixed fee** includes **all the CM's costs** including
      1. Payroll costs,
      2. Direct expenses,
      3. Overhead,
      4. Profit, and
      5. Any other project-related costs expended by the CM.

ACEMI

Fixed fee

- The fixed fee approach can **adversely affect** the parties involved.
  - For example, **unexpected problems** can require a **CM to expend more cost** than budgeted for staff to perform certain tasks, or to resolve problems.
  - The CM could also be required to **provide a greater level of effort** than **originally anticipated**.
    - ✓ Such factors can have a **serious impact** on CM's fixed fee budget.
    - ✓ Conversely, **some owners believe** that **temptation** always exists for the CM to put forth **less effort**

      than anticipated or required in order to **maximize** the CM's **profit**.

Fixed fee

- **Progress payments** to the CM under the fixed fee method of compensation are **usually paid** in accordance with
    1. A **pre-determined schedule** of **monthly progress** payments for the pre-construction phase, and
    2. The **reported aggregate percentage** of construction **work completed** by the trade contractors during construction.
    - If the CM's contract has a **retainage clause**, retention of 5%-10% is considered reasonable through **substantial completion** of the project.
    - Thereafter, the **retention** is usually **reduced** and **paid in full** when the project is considered to have reached **final completion** as defined by the contract documents.

Cost plus fixed fee

- In this method, the CM is paid

    1. An **actual salary** times a **multiplier** to cover all overhead costs and
    2. A **separate lump sum**, or fixed fee, as profit.

- It **fixes** the amount of **fee (profit)** that the CM will be paid to a lump sum and often spells out how and in what increments the fee **will be paid**.

Cost plus fixed fee

- The **fixed fee** portion **under this method** of compensation will generally range from
  1. 2%-4% of construction costs or
  2. 8%-12% of the CM labor costs.
  - Factors having a bearing on the amount of fixed fee include

    size, complexity, duration, the services to be provided, and the terms and conditions agreed to by the parties for direct reimbursable costs.

    - ✓ In addition, the **use of multipliers** applied to certain costs can also have a bearing on the **amount of fixed fee agreed** to by the parties.

ACEMI

Cost plus fixed fee

- The **cost-plus-fixed-fee method** of compensation can also be divided into **two separate phases.**

ACEMI

Cost plus fixed fee

- For the pre-construction phase,
  1. A **fee** may be established with
  2. **Certain direct expenses** recognized by the parties as **reimbursable**.
  3. **Another** compensation option sometimes used for the pre-construction phase is a **lump sum**.
     - The pre-construction phase may **end** at
       1. The **time of the award** of the first construction contract or
       2. As established by the **contract**.

Cost plus fixed fee

- During the construction phase,
  1. A **separate fixed fee** is established, and
  2. **All project-related costs** are usually **reimbursed**, as per the terms and conditions of the contract.

ACEMI

Cost plus fixed fee

- The **fixed fee** usually includes the cost of
  - Officers,
  - Principals, and
  - Home office support staff not directly assigned to the construction site,
  - All costs not directly related to site operations, and
  - Costs not identified as reimbursable under the terms and conditions of the contract.

Cost plus fixed fee

- **Examples** of costs that are **not normally** a part of the **reimbursable expenses** include
  - Home office overhead,
  - Recruitment costs for the job site and
  - Home office personnel, and
  - Profit.

Cost plus fixed fee

- **Reimbursable expenses** generally include the costs of

  all job site personnel, staff relocation costs, travel and living expenses, subsistence to key field employees, consultants, the cost of all job site material, equipment, communications, vehicles, project-related fees paid, reproduction, postage, computer, and any other field office-related expenses.

- **Other reimbursable expenses** may include

  the use of consultant's home office personnel who may be involved in purchasing, expediting, scheduling and estimating, and any other specific functions or tasks that are usually part-time and project or field support service related.

Cost plus fixed fee

- Further, the cost of
  1. General condition items and
  2. Any field labor associated with the performance of **general conditions** would be considered **reimbursable expenses** in a cost-plus-fixed-fee arrangement.
- The parties should **clearly identify** and **agree** on what is, and what is not included as part of the fixed fee and **identify** such items in the contract **before** a fixed fee is **established**.
- In addition, the contract should also be clear in its **definition** of
  1. Reimbursable costs and
  2. How the fixed fee and reimbursable costs will be paid.

ACEMI

Cost plus fixed fee

- **Progress payments** are usually made based on
  1. A **percentage** of the **fixed fee** in terms of actual construction progress achieved, plus
  2. **Actual labor costs** and
  3. The **actual allowable reimbursable** expenses incurred by the CM **to date**.
- **Retention**, if held, may range from **5%-10%** through substantial completion.
  - ✓ Thereafter, it may be reduced and then paid upon **final completion**, as defined by contract terms and conditions.

Cost plus fixed fee

- **Increases** in compensation **limits** may be allowed **when**
    1. Scope changes,
    2. Additional CM services are required, or
    3. Delays beyond the control of the CM are encountered.
    - In **some cases**, the parties may **agree** that the fixed fee **never increases**.
    - In other situations, the CM **contract** may be silent on these issues;

      however, **such silence** can be a source of **disagreement** when these circumstances arise.

Fee as a percentage of construction cost

- Under this method of compensation,

  the **CM usually begins** by providing CM **services** during the preconstruction phase on

  a **fixed fee** or **lump sum** basis.

  - CM services rendered during the construction phase are based on

    a **fixed percentage** of the estimated or actual **construction cost.**

Fee as a percentage of construction cost

- If the estimated or actual construction costs (based on contract award values) are **increased** due to

  approved changes,

  the **amount** of CM compensation may be increased based on

  a **pre-determined percentage** of the costs of such changes.

  - The **fee percentage** applied to additional work may sometimes be based on a **sliding scale (usually decreasing)**,

    depending on the **size** of the **increase** of **construction cost**.

Fee as a percentage of construction cost

- **Progress payments** are usually made to the CM based on the **reported percentage** of actual construction work completed,

  with **reasonable terms** for retention of the fee until the **final payment** is made to the CM.

ACEMI

Fee as a percentage of construction cost

- This form of compensation is not recommended,

  as it is **arbitrary** and

  not related to the **effort** that may be required.

  - For example, a **greater effort** may be required for

    a **smaller dollar value project** due to

    1. Technical complexity or
    2. Schedule compression.

Guaranteed maximum price

- The **GMP pricing format** is typically associated with a CM at-risk delivery method, whereby the **CMAR usually offers** a price based on preliminary design-stage drawings.
  - The **design (working drawings)** may be in
    - ✓ The range of 50%-60% complete and
    - ✓ The technical specifications approximately 80% complete.

ACEMI

Guaranteed maximum price

- The **GMP** may include
  - The estimated and/or bid cost of certain trade contracts,
  - Purchases from suppliers and vendors,
  - General condition items,
  - The CM's fee,
  - Reimbursable expenses, and
  - Sometimes a contingency to protect the CM from unforeseen costs at the time the GMP is prepared.

Guaranteed maximum price

- A **contingency** is established to pay for
    1. Any unknown conditions that arise,
    2. Errors and omissions in documents.
- The **contingency** is either with
    1. Each line item or
    2. As a separate category.
- The **amount** is normally about 5-10% of the **total budget**.

ACEMI

Guaranteed maximum price

- It is **not unusual** for **certain costs** of specific items to be identified
  1. Separately or even
  2. Capped as part of the GMP.
     - For example, the CM's fee, the cost of general conditions and the CM's contingency may be identified

       separately as part of the overall GMP,

       but **any costs exceeding** such allowances are usually **paid on** a cost-reimbursable basis.
       - ✓ The use of **specific allowances** for unknowns should be **kept to a minimum**.

ACEMI

Guaranteed maximum price

- It is important the term Guaranteed Maximum Price be clearly defined in the contract as to **what** it includes and specifically excludes.
  - When an agreement on a GMP is reached with the owner subsequent to signing the initial contract, an **amendment** to the original agreement is **usually required**.
    - ✓ **Some believe** that a new contract should be established since the principles, terms, and conditions change.

Guaranteed maximum price

- If for some reason the **GMP** for the cost of construction cannot be agreed upon, the **CM may continue** at the owner's option to perform CM services during the **construction phase** as an agent of the owner.
  - Usually, the **owner** also maintains the **option** to terminate the contract.
    - ✓ It is important to clearly **define** the **status** of the agency relationship between the owner and the CM **when** a **GMP bid is submitted** in order to ensure both **parties' understanding** of legal obligations with respect to the **CM's changing role**.

Guaranteed maximum price

- Under a **GMP arrangement**, the CM's compensation is normally broken into **two phases** and identified separately for the pre-construction and construction phases.
  - During the pre-construction phase,
    1. The CM will usually be compensated on a fixed fee, lump sum, or cost-reimbursable basis and paid in **monthly portions**.
    2. Another option is to compensate the CM on
       - Labor **times** a multiplier for overhead and profit, with a **not-to-exceed** cost **limitation**.

ACEMI

Guaranteed maximum price

- Once the construction phase begins,

  the CM is usually compensated for

  1. The costs of doing the job plus
  2. An additional profit up to a pre-determined amount.

  Typically, the **CM** must

  1. **Absorb** any cost overruns and
  2. **Reimburse** cost underruns.

Guaranteed maximum price

- Once a **GMP for construction** cost is established,

  the **CM** takes on the **risk** of completing the project.

  - Trade and specialty contracts are

    bid, negotiated, awarded, and usually held by the CM.

- It is the **responsibility** of the **CM** to stay **within**

  - Its estimated costs and

  - Contingency allowances.

Guaranteed maximum price

- On **some GMP** projects, the **owner** may **reserve** the **right** to **approve** all trade and purchase **contracts**.
  - Under such conditions, the **CM contract** should be clear as to **which party pays** the **difference** between
    1. The estimated trade contract cost and
    2. The actual trade contract award value

    when the award value **approved** by the owner is **greater than** the estimated cost element included in the GMP.

Guaranteed maximum price

- There may be **situations where** the **owner only wants** to **pay** the actual cost of completing the project, **assuming** the actual construction costs could be **less than** the **GMP established** for construction costs.
  - In such cases, the **contract** should be **clear** as to **who derives** the **benefit** of any cost **savings**.
    - ✓ This is **best achieved** by a shared incentive savings clause included in the **contract**.

Guaranteed maximum price

- As in most contracts, the owner retains the **right to make changes**.
  - Accordingly, the **contract** should be clear as to **how** the **GMP** will be equitably adjusted for both **added** and **deleted** work.
    - ✓ In **some contracts**, there may be no adjustment in **fee** for **changes**.
    - ✓ The **CM** is **only compensated** for the cost of the **work under** the terms for reimbursable costs.
      - If the project is **extended** beyond the scheduled completion date for reasons **beyond the control** of the CM,
        1. A time extension and
        2. An increase in the CM's compensation may be required.

Guaranteed maximum price

- It is also important that the terms **“construction costs”** and **“project costs”** be clearly defined.
  - The definition of construction costs is usually stated as the cost of all work required to **complete construction** as defined in the construction contract documents.
  - Project costs include such items as land costs, professional service costs, or the cost of movable equipment, furniture, etc.
- In addition, definitions should be provided for reimbursable and non-reimbursable costs.
- Public sector clients often have audit requirements for any cost reimbursable, GMP type contract.
- This audit requirement adds to the administrative burden of the project for both the owner and the CM.

ACEMI

Guaranteed maximum price

- **Payments** to the CM during the construction phase are usually made on a **monthly** basis and in proportion to
  1. The cost incurred and
  2. The construction work completed.
     - If retainage is required by the owner, a range of 5%-10% of the CM's earnings is reasonable.
- **Two payment issues** requiring attention include
  1. The potential for overpayment and
  2. Calculating any sharing of cost savings if made part of the contract requirements.

Guaranteed maximum price

- If for some reason the GMP is **exceeded**,
  1. the **CM** will be **responsible** for the **additional costs** **unless** the **owner** is determined to be partially or totally responsible.
  2. If the **owner** is found to **bear responsibility**, the **CM** may be **entitled** to a cost adjustment and possibly a time extension.

Guaranteed maximum price

- There are **two points** that are sometimes **not understood** by owners or **not properly addressed** in some GMP agreements.
  - Both points are **common causes** of compensation disputes between owners and CMs under **GMP contracts**.
    1. The first is **who owns** the savings or the contingency that is sometimes created in the **actual buy-out** of the trade contracts and purchases **after** the GMP has been **agreed** to by the parties.
    2. The second is **who benefits** if the **actual construction costs** are **less than** the **established GMP**.
       - ✓ **Unless** the **contract specifically** provides otherwise, the **answer to both** questions is the CM, since the **CM** is the party taking the **risk**.

General condition items

- On some projects, a **CM may be responsible** for providing **general condition items**.
- **General condition items** may include the following:
  - *Site security, scaffolding, hoists, signs, safety barricades, cleaning, dirt chutes, cranes, shanties, preparation for ceremonies including minor necessary construction activity, temporary toilets, fencing, sidewalk, bridges, first aid station, trucking, temporary elevators, special equipment, winter protection, temporary heat, water and electricity, temporary protective enclosures.*

General condition items

- On some projects, a **CM may be responsible** for providing **general condition items**.
- **General condition items** may include the following:
  - *Also, field office and its related costs such as equipment, furnishings and office supplies, progress photographs, messenger service, installation of owner furnished items, post and planking, general maintenance, subsoil exploration, refuse disposal, field and laboratory tests of concrete, steel, and soils, surveys, benchmarks, and monuments, storage on-site and off-site of long lead procurement items, and miscellaneous minor construction work.*

General condition items

- The cost of **general condition items**, including related labor costs expended by a CM, may be **paid when** such costs are **actually incurred**.
  - An **alternative** is to establish a **maximum cost** of performance for the **general condition items** for the project.
    - ✓ This can be achieved by

      a **lump sum**, cost **not to exceed** the limit, or even a **GMP**.

ACEMI

General condition items

- When a CM performs **under a GMP**, the **general condition items** can be
  1. Part of the **overall GMP** for the cost of construction or
  2. **Separately identified** as a GMP established for **general condition items** within, or
  3. **Separate from**, the GMP established for total construction costs.

ACEMI

Creating the desired owner-CM relationship

- The creation of the **desired legal relationship** between the CM and the owner requires **careful consideration** during contract **negotiation** and **drafting**.
- The **CM's method** of compensation should be **consistent** with the **form of construction management** being sought by the owner.
  - A method of compensation that creates a **potential for conflict** between the owner's interests and the CM's interests indicates

    a non-agency relationship and could put the CM into jeopardy when a fiduciary relationship exists.

Compensation for CMs

- **Several methods** are recognized and commonly used in the compensation of firms for professional construction management services:
  1. Cost Reimbursement
  2. Fixed Fee
  3. Cost Plus Fixed Fee
  4. The fee as Percentage of Construction Costs
  5. GMP

Creating the desired owner-CM relationship

- **Of the alternatives** presented above, the first **three are most consistent** with the agency relationship

  because the calculation of the CM's compensation does **not conflict** with the **protection** of the **owner's interests**.

  - However, using the **percentage of construction cost** as the CM compensation determinant presents an **inherent conflict**.
    - ✓ Where the **CM fails** to deliver the project at the **lowest possible cost**,

      the CM's compensation will be **greater than** if **cost containment** had been achieved.
      - The CM is **rewarded** for the higher construction cost.
      - This **alternative** is **inconsistent** with an **agency relationship**.

Creating the desired owner-CM relationship

- A CM contract with a **GMP** is also **inconsistent** with an agency relationship.
  - Because **costs exceeding** the GMP may be **paid out** of the CM's fee, the CM has an **incentive** to **keep costs** within the **GMP**.
    - ✓ The CM may **keep construction costs** from overrunning the GMP by
      1. Performing the work and
      2. Cutting corners to save money, time, or costs.
      - Much like a GC, the **CM** has some **incentive** to put **its own interests** above **those of the owner**.

Factors For Determining Compensation

Creating the desired owner-CM relationship

- There are **several factors** to be considered for **establishing** fair and reasonable compensation for **CM services**:
  - The **owner** and the **CM** should **agree on**
    1. A scope of services and
    2. The use of a form of CM agreement

    prior to the CM submitting its cost proposal.

Creating the desired owner-CM relationship

- There are **several factors** to be considered for **establishing** fair and reasonable compensation for **CM services**:
  - The **owner** should consider the **cost of CM services only after**
    1. The establishment of the technical requirements and
    2. Careful consideration of the CM's qualifications,
    3. Related experience, and
    4. Proposed staffing plan.

Creating the desired owner-CM relationship

- There are **several factors** to be considered for **establishing** fair and reasonable compensation for **CM services**:
  - The CM **contract proposed** to be used by the parties should **clearly define**
    1. the risks and
    2. authority assumed by the CM,

    as **distinguished from** those retained by the **owner**.
  - Keep in mind that the **use** of any standard form agreement usually requires **some changes** in order to be tailored to a project.
    - ✓ **Legal counsel** should always be involved.

Creating the desired owner-CM relationship

- The **owner** and the **CM** should establish a **clear understanding** of
  1. What is included, and
  2. What is excluded

  in any fee arrangement and the cost of the work or services.

  - This especially includes **definitions** for **such terms** as

Creating the desired owner-CM relationship

- This especially includes **definitions** for **such terms** as
  - GMP,
  - cost of the work or cost of construction,
  - project costs,
  - base services,
  - allowances,
  - contingencies,
  - reimbursable costs,
  - non-reimbursable costs,
  - fixed fee,
  - multiplier,
  - etc.,
  - as may be appropriate for the particular form of CM contract to be used.

ACEMI

Creating the desired owner-CM relationship

- There are other important considerations:
  - When applicable, the owner and the CM should **establish** a **reasonable overhead allowance** based on
    an **audit** of allowable and reasonable **costs**.
  - **Contract provisions** should address
    1. **How changes** in scope and
    2. Additional CM services

       will be handled.

ACEMI

Creating the desired owner-CM relationship

- There are other important considerations:
  - When a **GMP** is used, it should be based on
    the **total estimated cost** of construction and
    not on **individual line items** within the total estimated cost.
  - For **GMP contracts**, the owner and the CM should **establish** a **clear understanding** of the type and use of **any contingency** funds.
  - A **CM contingency** (ranging from **1% to 3%**) for
    1. Errors in estimating or
    2. Covering unforeseen costs relating to construction

    is reasonable.
    - ✓ **Such contingency** is identified separately and **paid** based on **documented evidence** of expenditures by the CM.

ACEMI

Creating the desired owner-CM relationship

- There are other important considerations:
  - Consideration should be given to using a shared savings clause that provides an **incentive** for the CM to **achieve performance** under the **GMP approach.**
  - **Contract provisions** should address extended **CM service costs** for any project extension **caused by reasons beyond the control** of the CM.

دستورالعمل ارجاع کار و انعقاد قرارداد با واحدهای خدمات مدیریت طرح (نسخه قدیمی)

شماره ۱۰۱/۲۶۷۲۲
تاریخ ۱۳۸۲/۰۲/۲۱

بسمه تعالی

ریاست جمهوری
سازمان مدیریت و برنامه‌ریزی کشور
دفتر رئیس سازمان

به دستگاه‌های اجرایی، سازمانهای مدیریت و برنامه‌ریزی استانها و واحدهای خدمات مدیریت طرح	شماره : ۱۰۱/۲۶۷۲۲ تاریخ : ۱۳۸۲/۲/۲۱

موضوع : دستورالعمل ارجاع کار و انعقاد قرارداد با واحدهای خدمات مدیریت طرح

به استناد مواد ۲۲ و ۲۳ قانون برنامه و بودجه و آیین‌نامه استانداردهای اجرایی طرح‌های عمرانی و نظام فنی و اجرایی طرح‌های عمرانی کشور (موضوع تصویب‌نامه شماره ۲۴۵۲۵/ت۱۴۸۹۸هـ مورخ ۱۳۷۵/۴/۴هیأت وزیران)، به پیوست دستورالعمل ارجاع کار و انعقاد قرارداد با واحدهای خدمات مدیریت طرح از نوع اول (لازم‌الاجرا)، ابلاغ می‌شود تا در طرحهایی که استفاده از واحدهای خدمات مدیریت طرح در آنها لازم باشد، بکار گرفته شود.

این دستورالعمل، در قراردادهایی که از این پس منعقد می‌شوند، جایگزین بخشنامه شماره ۱۰۵/۱۲۵۱-۵۴/۲۶۲۲ مورخ ۱۳۷۹/۵/۱۲ می‌شود.

محمد ستاری‌فر
معاون رئیس جمهور و رئیس سازمان

دستورالعمل ارجاع کار و انعقاد قرارداد با واحدهای خدمات مدیریت طرح (نسخه جدید)

شماره ۱۰۱/۱۹۴۸۵۹
تاریخ ۱۳۸۳/۱۰/۲۱

ACEMI

بسمه تعالی

ریاست جمهوری
سازمان مدیریت و برنامه‌ریزی کشور
رئیس سازمان

بخشنامه به دستگاههای اجرایی، سازمان مدیریت و برنامه‌ریزی استان‌ها و مهندسان مشاور	شماره: ۱۰۱/۱۹۴۸۵۹ تاریخ: ۸۳/۱۰/۲۱
موضوع: دستورالعمل انتخاب و ارجاع کار به واحدهای خدمات مدیریت طرح	

به استناد ماده ۲۲ و ۲۳ قانون برنامه و بودجه و بر اساس بند ۱۱ قسمت ب ماده ۲ آیین‌نامه تشخیص صلاحیت مشاوران، به شماره ۲۰۶۳۷/ت۲۸۴۳۷هـ مورخ ۸۳/۴/۲۳ و بند "الف" ماده ۱۴ آیین‌نامه نحوه انتخاب و ارجاع کار به مشاوران به شماره ۱۷۲۳۴/ت۲۸۴۲۲ هـ مورخ ۸۳/۴/۷ مصوبه هیأت محترم وزیران، به پیوست دستورالعمل انتخاب و ارجاع کار به واحدهای خدمات مدیریت طرح از نوع اول (لازم‌الاجرا)، ابلاغ می‌گردد.

با ابلاغ این دستورالعمل، بخشنامه شماره ۱۰۱/۲۶۷۲۲ مورخ ۸۲/۲/۲۱ "دستورالعمل ارجاع کار و انعقاد قرارداد با واحدهای خدمات مدیریت طرح" وهمچنین بخشنامه شماره ۵۴/۱۹۷۰-۱۰۲/۲۵۳۱ مورخ ۷۸/۵/۱۰ "شرح عمومی خدمات مدیریت طرح" لغو می‌گردد.

حمید شرکاء
معاون رییس جمهور و رییس سازمان

موسسه مهندسی و مدیریت ساخت علوی پور (ACEMI)

دفتر آموزش

تهران، بلوار فردوس شرق، مجتمع آبگینه، طبقه سوم اداری، واحد C42

+۹۸ ۲۱ ۴۶ ۱۰۰ ۴۵۰

+۹۸ ۲۱ ۴۶ ۱۰۰ ۴۴۵

www.dralavipour.com

info@dralavipour.com

@acemi_social

@alavipour_pm

@IRANACEMI

@alavipour_pm

ACEMI