

# The Evolution and Impact of the Construction Manager Agent: From Master Builder to Modern Leader

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The role of the Construction Manager Agent (CMa) has changed significantly over time. It began with the master builder, who oversaw entire projects from design to construction. Today, the CMa takes on a vital role, managing the planning, design, and construction phases while providing leadership and guidance.

### Historical Development of the Construction Manager

Modern construction management is a broad approach to handling large, complex projects. The CMa represents the owner and ensures projects are completed on time, within budget, safely, and to high-quality standards. Historically, this role started with the master builder. In ancient civilizations like Egypt, Greece, and Rome, the master builder oversaw design and construction, using technical and artistic skills.<sup>1</sup> This person was the forerunner of today's architects and construction managers.

As projects became more complex during the Industrial Revolution, design and construction became separate functions.<sup>ii</sup> Architects focused on design, while contractors managed the building process. This created the need for a CMa to bridge the gap between these roles, ensuring that projects followed the design while remaining practical and efficient to build.

By the late 20th century, construction management had become a recognized profession. The CMa became essential, particularly for large projects, coordinating stakeholders, managing budgets, and ensuring deadlines were met. While



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the role evolved, the CMa's responsibility for overseeing the entire construction process continued.

# The Role of the CMa in the Planning and Design Phases

The CMa's involvement in planning and design is key to the success of a project. One of the CMa's main tasks is creating a detailed construction schedule. This schedule outlines tasks, sets material lead times, and allocates resources efficiently, preventing delays during construction and ensuring the project stays on track.

In the planning phase, the CMa provides cost estimates to set a realistic project budget. By doing this early on, the CMa helps ensure the design stays within budget, reducing the chance of expensive redesigns. With expertise in materials and labor, the CMa can suggest cost-effective alternatives without compromising quality. Their broad understanding of the construction process ensures that all parts of the project are considered when planning.

Another significant role for the CMa in the design phase is conducting constructability reviews. These reviews examine design plans to identify potential issues and recommend changes to make the building process smoother. This step ensures that the design is both visually appealing and feasible, helping speed up the project.

CMas are also skilled at identifying risks early. By participating in planning and design, they can foresee issues related to site conditions, design challenges, or regulatory requirements. Their involvement allows them to create contingency plans and take proactive steps to avoid cost overruns or delays.

## Leadership and Continuity Throughout the Project Lifecycle

The CMa provides leadership and continuity throughout the entire project. Acting as the owner's representative, the CMa ensures that the owner's goals are communicated clearly to the design and construction teams. They help assess design options, evaluate contractor bids, and provide expert advice on all construction matters.

One of the CMa's most important roles is as Project Coordinator. They function as a bridge between the design team, engineers, and other stakeholders, ensuring that everyone is aligned with the project's goals. By resolving conflicts between design intent and construction realities, the CMa keeps the project on track and avoids miscommunications.

Having been involved in planning and design, the CMa offers continuity during construction. Their deep understanding of the project's goals and constraints ensures a smooth transition from design to building. This reduces the risk of errors and miscommunication. The CMa's early involvement also allows them to closely monitor construction, ensuring that materials, workmanship, and finishes meet the specified requirements.

As the leader onsite, the CMa can resolve issues quickly and efficiently. Their knowledge of the project's history allows them to make informed decisions, helping to solve problems and keep the project on schedule. The CMa also fosters collaboration among the project team, ensuring that everyone stays focused on delivering the project on time and to a high standard.

#### Conclusion

The role of the CMa is crucial to modern construction projects. Drawing from the tradition of the master builder, the CMa provides expert oversight from planning through construction. Their involvement in the early phases allows them to offer insights into cost, feasibility, and risk management. During construction, they ensure continuity, provide leadership, and bring a deep understanding of the project, guiding it to successful completion. As both leader and coordinator, the CMa is the key figure who keeps the project team aligned, driving it from concept to completion with expertise and efficiency.

<sup>1</sup>Olga Popovic Larsen, Andy Tyas, Conceptual Structural Design: Bridging the Gap Between Architects and Engineers (2003)

<sup>II</sup> Performance Services, The Past, Present, and Future of Design-Build Construction January 23, 2024



#### **About the Author**

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