

Hi! Thanks for choosing to read the following lines which were written to answer some questions you may have about construction management. I hope you find the information below useful and that it helps you make future career decisions. There are also other files that you can download for free from our website. Use the hashtag #Hired2Win to download the password-protected files. Take care my friend. - OC

Q: What Is Construction? 🤔

Construction is a general term used in many different fields. Our focus here is on activities such as building houses, offices, hotel rooms, sport stadiums, roads, and bridges. Therefore, construction is the collection of all activities that lead to the creation, expansion, rehabilitation, and demolition of all structures constituting the built environment.

No one wakes up one day and start building stuff out there without construction plans and permits, labor forces, materials, and equipment. Although construction literally happens in the field or in a shop, the construction process has multiple phases (see below), and many construction activities take place in an office. In general, construction projects involve a builder and a client, the Owner, who wants to build something. It could be in any construction sector: residential, institutional and commercial¹, infrastructure, industrial ... you name it, it will be built. Clients may come from the private or the public sector.

Please take some time to do your own research. You might be interested in learning more about construction workers' and managers' daily activities, sustainability in engineering design and construction, new building techniques and materials, costs of construction projects in different parts of the world, etc. The construction industry is HUGE, and there's something being built somewhere every single day.

Q: What Is Construction (Project) Management? 🤔

Short Answer: Construction management is the process of dealing with the implementation of a construction project by bridging the gap between Concept² and Project Closeout. A construction manager is an individual charged with this task.

Long Answer: Whenever an individual or an organization (Owner) is paying a Contractor or Builder to construct a house, a mall, an office building, a bridge, or an airport terminal, this is considered to be a construction project. Every construction project goes through several phases. In general, the phases are as follows:

1) **Planning:** scope description, feasibility study, permit application, acquiring properties, etc.

¹ Commercial buildings are buildings where most of the floor space is used for commercial purposes. Retail and office buildings fall under that category. In some areas, commercial buildings may be designed to house multiple functions.

² The term construction management is also used for work performed strictly during the *Construction* phase (see number 4 below).

- 2) **Design:** from concept to digital blueprints prepared by professional architects and engineers
- 3) **Procurement:** requests for proposal, reviewing bid documents, contract awards
- 4) **Construction:** from blueprints to the physical world; Notice to Proceed to Final Completion
- 5) **Project Closeout:** training, collecting quality reports, O&M* manuals, and as-built plans
- 6) **Operations & Maintenance*:** making sure the building or the rail line is functioning properly
- 7) **Capital Improvements:** *add-ons/upgrades to existing structures (in the future)*

Phases 1 and 2 have many overlapping steps; same thing for Phases 4 and 5. Construction management is the process of completing every step of Phases 1 through 5 from start to finish. The Construction phase is usually the responsibility of a General Contractor (GC) that signs a contract with the Owner to deliver a final product. Typically, a construction CM manager works for a GC, but you may also have the opportunity to start your career with a CM³ agency, a Subcontractor, a Developer, an Owner, or an organization hired to protect the Owner's interests (Owner's Representatives or Owner's Reps).

What exactly am I managing? 🤔🤔🤔

1. **A series of tasks/problems:** really, as a construction manager, you are a problem solver. Every day is an opportunity to solve problems with your teammates and complete relevant tasks from A to Z until the project is done-done (Final Completion/Turnover). These tasks are divided into multiple scopes of work, including but not limited to civil, architectural, structural, mechanical, electrical, plumbing, and other work depending on the type of project you're working on. The GC's contract value and the complexity of the project determine the size of the project's staff, which in turn determines whether your immediate responsibilities cover one or several scopes of work.
2. **People:** YOU (your mental state, work ethics, performance, and time), your relationship with your project teammates including Office and Field Personnel (Construction Workers/ the real MVPs and Inspectors), Owner's Representatives, Designers, and Subcontractors (Other Contractors that sign a contract with the GC to complete specific scopes of work).
3. **Documents:** construction plans and specifications (and many revisions), work plans, Safety & QC documents, permits, survey data, requests for information (RFIs), product submittals, shop drawings (detailed plans), meeting minutes, pre-construction photos, correspondence from and to the Owner, project closeout items, timesheets, invoices and payment requests, etc.
4. **Safety:** achieving Zero Accidents and the practice of Safety excellence (can't rely on luck). Everyone is a Safety ambassador, and safety measures⁴ are taken daily to make sure that everyone goes home to their family.

³ Note: Some GCs like to go after contracts where they act as Construction Managers (CM) for the Owner. In some of these cases, the GC (usually the Prime Contractor) only has a contract with the Owner, and the other Contractors (usually the GC's Subs) also have a contract with the Owner, not with the GC. In other cases, the GC is both the CM and the Prime Contractor.

⁴ training, using the right personal protective equipment (PPE) for the job, engaging experienced people in the planning phase, performing inspections, job hazard analyses, and walk-throughs, asking questions and challenging current safety practices, stopping work ...

5. **Quality:** building it right (per the latest plans and specs) and building it right the first time (to avoid safety impact and cost increase, but also to build trust and take pride in your work).
6. **Schedule:** daily planning and coordination efforts to help the team meet Substantial and Final Completion dates (deadlines set during the Procurement phase).
7. **Cost:** not everybody will admit it, but this is really what it's all about. Money. Lajan. Dinero. Profit! When planning and executing work activities, you are constantly trying to keep costs as close to the original budget as possible (or lower). You are buying and paying for different stuff needed in the office and in the field. You also spend some time asking for more money due to requests to perform out-of-scope work and due to unforeseen conditions. By using different cost codes as a tracking measure for each type of work activity, you are able to generate actual job cost reports to analyze production trends every day (less likely) or every week (more likely). The total cost to complete the project or specific scopes is also forecasted weekly, monthly, and quarterly.
8. **Risks:** whatever threatens 4 through 7.
9. **Office politics:** you can't avoid this - no matter where you go. Watch out for the gang members. Oops 🙄, sorry. I meant VIPs.
10. **Noise/Distractions:** a lot of BS/stupidity/nonsense/inefficiencies/archaic systems. Come on now, don't be discouraged by this; otherwise, construction management would be boring, wouldn't it?

Q: How Do I Become a Construction Manager?

You have several options, but one of the most common career paths is to get a civil engineering or construction management degree, secure summer internships, and get hired after graduation. You may also consider apprenticeship programs and other programs offered at technical schools that will take you to the field and later give you an opportunity to switch to management positions (if you choose to do so).

A better question would be “How do I successfully transition from classrooms to the field and become a construction manager that positively change the construction culture and that many people or companies want to hire?” If this is the kind of question you have, read my book [Construction Managers #Hired2Win](#) (available on [Amazon](#) and in [eBook](#) format 😊). You will learn about three key activities that anybody can focus on to maximize the quality of their experience as a construction manager now or in the future.

Whatever you decide to do, please find a way to develop your analytical/problem solving skills and your *constructability* awareness. Also keep in mind that there's no substitute for hands-on experience.

Q: Civil Engineering or Construction Management in College?

Read my book! Okay, this won't work twice. So, here's an excerpt from the second chapter of #CMHired2Win where the two main characters (Kory 'K' and Denzel 'D') are talking about this. This is the beginning of the chapter.

K I have so many things going on in my mind right now, but I think I'm still considering majoring in civil engineering. So, here's my first question about that. Should I major in civil engineering or construction management if I want to work for a GC when I graduate, and do you think my choice matters?

D Ok ... First, please remember the fact that I don't have a construction management degree. I think you need to ask people from both sides and make your own decision. Cooper Union didn't have a construction management program, but they had a great civil engineering program, and most importantly, it was free. Well ... technically, that's not true. It wasn't *free*; it was at no cost to me, and I will forever be grateful for this amazing opportunity, the people I met, and the time spent there.

The ideal situation for me would be a double major, if and only if I could afford it and it was possible to do so without spending an additional year in classrooms. In this perfect-world scenario, I would complete both sets of degree requirements at a school offering great construction management and civil engineering programs. But here's the thing: it's hard to predict what the job market will look like during your senior year. No one told me I had to get ready for a financial crisis in 2008-2009. If you're not interested in a double major, there are a few things to consider.

Graduating with a civil engineering degree will allow you to venture into engineering design or construction management. A good construction management program will require hands-on experience that will serve you well if you choose this career path, but it may be difficult for you to make a move into engineering. So, I think you'd have more options with a civil engineering degree, but you'd have more exposure to the construction management world with a construction management degree.

Plus, please keep in mind that I'm answering the first part of your question based on the way the question was phrased. It seems like you're only considering civil engineering and construction management degrees. I know this is how our conversation started, but I just wanted to pause for a second and make sure you know there are career opportunities in many other construction-related fields. If you're open to considering different career paths, you can do some research on how to become a construction worker, a mechanical or electrical engineer, an accountant, a lawyer, a recruiter, or a construction software engineer.

If you choose to major in civil engineering, I highly recommend that you also take some construction and cost management classes, visit as many construction sites as you can, get at least two internships with two different GCs, and learn how to read construction plans. Also, before I forget, please become a pro in Microsoft Excel and Bluebeam Revu; you'll be working on plenty of spreadsheets and Bluebeam is one of the most popular PDF viewers and editors used by construction managers nowadays. In addition, learn how to use popular design and engineering software such as the Autodesk products that are available to you at no cost or at a discounted price for students. You never know when these skills will come in handy. No, scratch that. One day, these skills will come in handy.

Now, I'm not sure about how I should answer the second part of your question. Does your choice matter? I'd like to say yes, but I don't know what your story will be. And you don't know what your story will be. For instance, you may decide to major in construction management and later find yourself wanting to become a designer. Or, if you start to see the value of a Professional Engineer (PE) license after a few years of work experience, you may have to deal with some states not letting you take the Fundamentals of Engineering (FE) exam since you don't have an engineering degree. In both cases, majoring in civil engineering would be a better choice. However, when you graduate with a civil engineering degree, you may also decide to pursue other career paths that are more in line with a management background.

A lot of things can change by the time you graduate: your career interests, the construction market, the workplace culture, and more. The recruiter or hiring manager reviewing your job application may value an engineering degree more than a construction management degree. It can also be the other way around. So ... go with what you think is the best choice for you, and get as much hands-on experience as you can. Connect with your peers and construction professionals, monitor your interest level, and pay attention to industry trends as you get closer to graduation.

Q: What Will Be My Salary⁵?

I don't know. Your salary will depend on many things such as timing (current market conditions and career opportunities with your employer), geographical locations⁶, and your personal brand (hands-on experience and ability to solve problems for your employer). I wish I could say 100% that you get what you negotiate, but that wouldn't paint the whole picture.

Salary in the construction industry is determined by titles, number of years of experience, and educational background, not by value creation (though the assumption is made that you can add value if your title is Senior Project Manager, if you've been in the business for more than X-number of years, and if you have a four-year college degree). Let's put it this way, if you, a high school or college student, were to successfully go through an interview process with a GC today and somehow prove that you could add more value (more money to the bottom line) than the current senior project manager of a project, you would still be offered a typical Project Engineer salary or less.

Just to give you an idea, my first offer in 2011 for a full-time Project Engineer position in New York was \$57.5K. In 2017, I've seen Project, Field, and Office Engineers get offers with numbers varying from \$52K to \$59K in Florida. Some offers may be lower or higher. Take a look at some

⁵ I invite you to think about the reason why you're interested in a career in construction management. If money is important to you, then please start making better financial decisions today to protect your financial health in the future.

⁶ Higher cost of living usually means higher salary, but it's not always true, and the salary adjustment is not always accurate. When I moved to the San Francisco Bay Area, I should have gotten a \$50K bump 😂, but my salary increase was just above \$1K 😞. On the other hand, when I moved from Los Angeles to Florida, I got a significant bump.

entries on job search platforms for your targeted area. If you want to know more about titles when you join a GC for the first time, the introduction and the first chapter of #CMHired2Win are available for free when you subscribe to our [mailing list](#).

Thanks again for reading.

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