



# How Good Mentors Can Help New Graduates Better Understand Constructability Concepts

Mike Schneider  
Fall Convention  
November 2024



## PRO - Mission:

To collaborate with designers, materials suppliers, and contractors to identify and resolve issues that negatively impact productivity in concrete construction. The Center and its members aim to advance design, new technologies, and processes that improve productivity beyond historic levels.





## What do we mean by productivity?

- Optimize field labor and construction speed.
- Reduce concrete conflicts with other trades.
- Increase project value to owners.
- Reduce project RFIs, design changes & change orders.



# What is Constructability?

“The effective and timely integration of construction knowledge into the conceptual planning, design, construction, and field operations of a project to achieve the overall project objectives in the best possible time and accuracy at the most cost-effective levels.”

– The Construction Industry Institute

- According to the Construction Industry Institute Task Force, early introduction of constructability practices can account for a *10:1 return on investment* for owners.

*PRO defines constructability as the effective integration of construction knowledge into the planning and design of a project to optimize its construction cost and schedule and maximize its value to the owner.*





# Constructability Blueprint Section 1: *Value of Design Collaboration*



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Now available for free download!



[concreteproductivity.org/constructabilityblueprint](https://concreteproductivity.org/constructabilityblueprint)

# Early Collaboration is key!

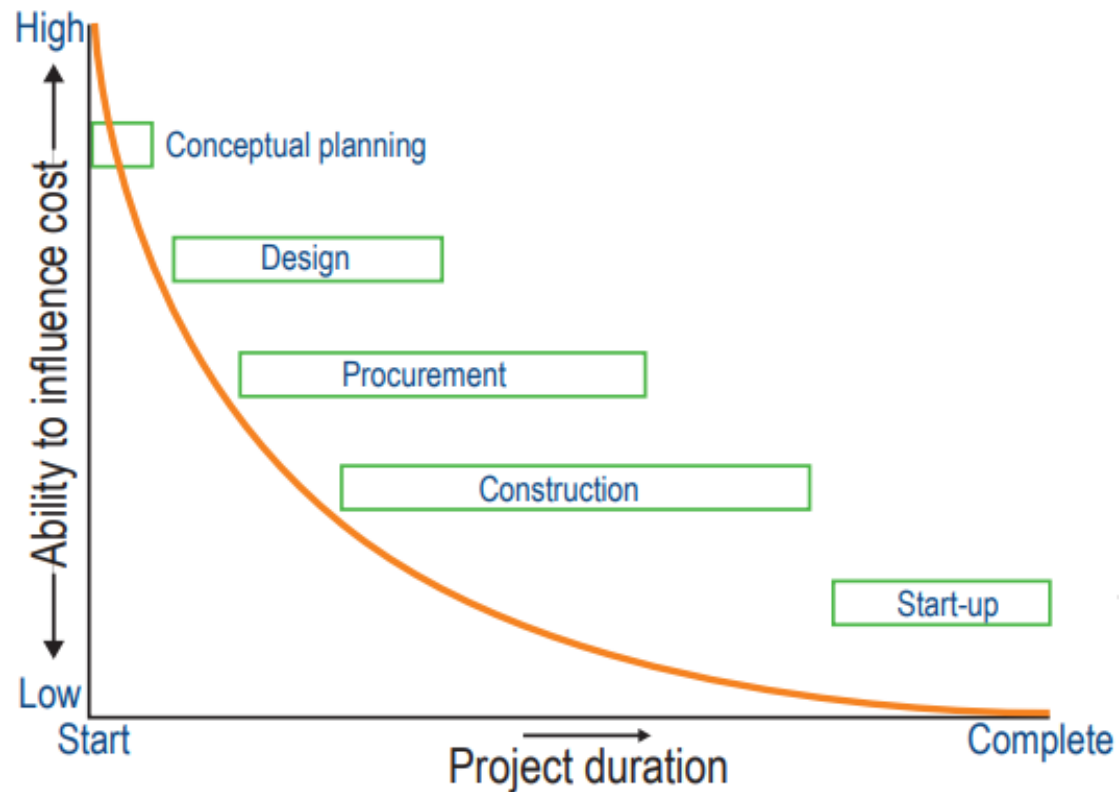


Fig. 1.1.1: The ability to influence the final cost of a project decreases rapidly with each phase of the project ("Constructability: A Primer, Construction Industry Institute," Austin, TX, 1986, 24 pp.)



## Concrete Constructability Certificate Program

ACI Certificate Programs are designed to provide concrete professionals with in-depth knowledge about particular topics in concrete materials, design, and/or construction by following a defined course of study. Once a course of study for a certificate program has been completed, the participant can request to receive a certificate through ACI University.

The **Concrete Constructability Certificate Program** covers planning, layout, project delivery, project site design and structural system concept design. Additionally, review of what type of design is appropriate, how to specify concrete, selection of reinforcement, and testing and inspection will be included. This certificate program is valuable to structural engineers to improve constructability and productivity in the industry.

A program certificate is awarded after completion of the following required courses (14.5 PDH):

- [Introduction to Constructability and Why it Matters \(1 PDH\)](#)
- [Structural Systems Concept Design \(2-part series\) \(2.5 PDH\)](#)
- [Design and Detailing of Steel Reinforced Concrete Structural Members \(2-part series\) \(3 PDH\)](#)
- [Coordination and Completeness of Structural Construction Documents \(1.5 PDH\)](#)
- [Developing Specifications for Constructable Concrete \(1 PDH\)](#)
- [On-site Testing and Inspection \(1 PDH\)](#)
- [Formwork for Constructable Concrete Structures \(1 PDH\)](#)
- [Variables Affecting Construction Project Execution \(1 PDH\)](#)
- [Design and Construction with Precast Concrete \(1.5 PDH\)](#)
- [Post-Tensioned Concrete Design and Construction \(1 PDH\)](#)

### Program Guidelines:

- Completion of each course requires an 80% passing score on the course exam.
- All course completion certificates must be earned within a maximum period of 2 years.
- Courses that are updated will still count toward the certificate program as long as they have been completed within the 2-year timeframe.
- Any course completed outside the 2-year timeframe must be retaken using the current version of the course.
- Courses must be completed by one individual using the same username.
- Access to ACI documents not included with the course may be required.
- Once the course of study has been completed, a program certificate can be requested through ACI University (My Courses tab).
- ACI reserves the right to update courses and change certificate program requirements at any time.
- ACI reserves the right to revoke a certificate or discontinue a certificate program for any reason.

### To Obtain Certificate:

My Courses	Certificates	Transcripts	Redeem Code
Concrete Constructability			
My Courses > ACI University Certificate Program > Concrete Constructability			
		Concrete Constructability Program Details	Launch
		Concrete Constructability Certificate Program - Request Certificate	Launch

CLICK HERE







BAKER BASIC TRAINING

# FIVE TOURS

Are you ready to get out of the classroom and meet the challenge and adventure of learning in the field?

As an intern in Baker's Five Tours training program, you get the opportunity to define your career path by getting hands-on experience on active jobsites. You will perform Five Tours — four core competency field training sessions and a fifth session that you choose based on your interest.

As you rotate through your Five Tours of training, you will learn more about key aspects of the concrete construction business and get first-hand experience on how Baker's core values of People, Honor, and Grit guide our work every day.

**BAKER**<sup>®</sup>  
Construction



**Broaden your  
experience by working  
alongside some of the best  
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## Sample Five Tours Regional Program



### TOUR 1: Carpentry/Labor

Work with Baker's carpentry crew to install and dismantle horizontal and vertical framework systems. Create work plans and gain experience by leading and participating in DWP-MTA reviews.



### TOUR 2: Line & Grade/Field Engineering

Learn to read and interpret project plans. Hands-on experience operating survey equipment, including robotic instruments. Learn the basics of field layout. Create as-builts.



### TOUR 3: Pump/Place/Finish

Participate in the placing, finishing, and curing of concrete slabs. Learn how to use place/finish tools. Support operations team with scheduling and managing equipment.



### TOUR 4: Project Engineer

Maintain required logs. Process RFIs (Request for Information) and submittals. Perform material take-offs, material and quantity tracking. Learn basic financial reporting.



### TOUR 5: Elective

Based on your interest and career goals, choose from a list of elective training tours such as: BIM, Formwork Engineering, BEAM (Equipment and Materials), Estimating, Safety, QA/QC, or Project Controls.



What are you struggling with?  
What are you most proud of?



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Questions?