



**Training for Construction Estimators,  
Project Managers, Supervisors, and Company Owners**

# About Construction Estimating Institute



**The Construction Estimating Institute (CEI)** is a leading provider of construction training. CEI training courses deliver the essential skills and critical knowledge that you need to be successful in the construction industry. Join over 100,000 construction professionals who have improved their skills through CEI training. Classes are held on beautiful Siesta Key in Sarasota, Florida.

## Training for the Construction Professional

**Seminars and Courses** provide real-world training that produce immediate results. CEI cost estimating courses are the quickest and most effective way to train beginning estimators and to improve the skills of more experienced estimators. CEI management courses provide management personnel with the skill sets needed to successfully manage construction projects in today's environment. The 2017 course offerings and schedules are listed in the following pages of this catalog.

**Training at Your Location** delivers the training your employees need, customized for your requirements and delivered when and where you want it. This allows you to cost-effectively train a group of your employees together at one time. Training at your location can consist of any of the courses offered in this catalog, a combination of different parts of those courses, or a completely new course based on your company's requirements.

**Association Sponsored Training (Do you belong to an association?)** provides your association members with fresh courses and topics. The training is presented by a CEI senior instructor at your location. You retain complete control over course fees and CEI provides a risk-free fee structure. Ask your association's education director to contact CEI for details.

**Government Agency Training** is a CEI cornerstone. CEI is a leading provider of construction-related training for governmental agencies, having designed and delivered custom training programs for numerous governmental agencies over the past thirty years. CEI will design customized training to meet your agency's goals and bring that training to you or your stakeholders.



*"You cannot help but notice that CEI's instructors are extremely experienced and have a passion for teaching. They are experts in providing construction training and their classroom environment makes each student know that they are important."*

—Edward Chiaverini  
*The Hanover Company*

# 2017 Course Offerings

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## Register Today!

*(Class sizes are limited)*

**Phone:** 800.423.7058

**Online:** [www.ceihome.com](http://www.ceihome.com)

**Email:** [info@ceihome.com](mailto:info@ceihome.com)

**Mail:** Construction Estimating Institute  
5016 Calle Minorga  
Sarasota, FL 34242

### Cancellation Policy

Substitutions are allowed at any time. Full tuition refunds will be issued for cancellations made more than ninety days prior to the original scheduled course date. Tuition vouchers will be issued for cancellations made within ninety days of the original course date.

### Notice of Nondiscriminatory Policy

CEI admits students of any race, color, national or ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. It does not discriminate on the basis of race, color, national or ethnic origin in the administration of its educational policies.

**Call CEI to discuss your training today. 800.423.7058 / [www.ceihome.com](http://www.ceihome.com)**



# Estimating Building Construction

**Class size is limited to 12 registrants.**

**Register Now!**

**Tuition: \$1995**

*Includes Tuition, Books & Materials.*

**DVD Homestudy**

**Version Available: \$1995**

*Includes DVD Video Library and All Course Materials.*

*"I came to this class with little idea on how to estimate. After attending this course it became very clear to me how to assess construction costs and all of the elements involved in developing an estimate. The course is well-rounded, includes excellent reference materials, and the instructor provided great classroom support and used real world examples!"*

—Carlos Montijo  
*Contractors Tiles Plus, Inc.*

*"I would recommend your training to anyone in the construction business. Your training provided more than I expected."*

—Mark Ferguson  
*Director of Construction,  
Fibrebond*

## SYNOPSIS

### Division 1: General Conditions

- Complete detail estimate developed
- Full project schedule developed
- All support/supervision costs included

### Division 2: Sitework

- Subcontractor bids reviewed
- Both scope and prices analyzed

### Division 3: Concrete

- Complete detail estimate developed
- Cost breakdown for forming, reinforcing, placing and finishing
- Pre-cast components estimated
- Methods and options of performance studied

### Division 4: Masonry

- Complete detail estimate developed
- Block, brick, stone and glass block are estimated
- Industry accepted productivity adjustments are implemented

### Division 5: Steel and Miscellaneous Metals

- Complete detail estimate developed
- Tonnage conversions accomplished as required
- Erection equipment and costs reviewed

### Division 6: Carpentry

- Complete detail estimate accomplished
- Trim carpentry estimate prepared for current commercial building
- Materials adjusted from installed to purchased quantities

### Division 7: Thermal and Moisture Protection

- Complete detail takeoff accomplished
- Both pitched and flat roofs are estimated

### Division 8: Doors and Windows

- Complete detail takeoff accomplished

### Division 9: Finishes

- Complete detail takeoff accomplished
- Room finish schedule utilized as checklist
- Memory sheet method used to reduce estimating time required

### Divisions 10 through 16: Mechanical, Electrical and All Specialty Construction

- Estimated by general contractor methods that rely on subcontractor performance
- Scope verification and price analysis per division and/or trade
- Commercial construction project "real world" bids are utilized

### Summary Estimate and Bid

- A complete project estimate is prepared
- Total project cost is compared to recent project costs
- Mark-ups for overhead and profit are covered
- A bid document is completed

**To register, call 800.423.7058 or register online at [www.ceihome.com](http://www.ceihome.com)**

This five-day course prepares attendees to work as estimators for contractors bidding institutional or commercial building projects. Students will be able to accurately takeoff and summarize work quantities from architectural drawings, apply the correct costs for labor and materials, and prepare an accurate project estimate. Attain a level of proficiency that might otherwise take six months to achieve with on-the-job training alone.

## WHO SHOULD TAKE THIS COURSE

- Estimators with responsibility for total project costs
- Beginning to Intermediate Estimators
- Developers/Builders
- General Contractors
- Project Managers
- Building Contractors

## THIS COURSE SHOULD BE PART OF YOUR COMPANY'S TRAINING PROGRAM

In just five days, attendees learn how to produce accurate, detailed estimates of commercial buildings. All students complete an estimate of the general construction trades for a two-story commercial building. Mechanical, electrical, sitework and other specialty trades will be estimated using comparative appraisal estimating techniques.

Students attending this course develop the underlying skills needed to create and organize accurate estimates. Math and takeoff skills necessary for estimating the general construction trades are covered, as well as different types of drawings needed to visualize the building and its components. This is a practical alternative to the semester-long courses offered at colleges with construction technology programs.

## UPON COMPLETION, STUDENTS WILL BE ABLE TO

- Perform complete detail estimates of the general construction trades for commercial buildings.
- Put into practice a structured and tested system for determining project costs.
- Determine how project complexity affects labor pricing.
- Select the correct costs for all aspects of the entire project.
- Utilize various approaches to negotiate favorable subcontracts and material prices.
- Have confidence in their ability to function as fully qualified building construction estimators with valuable skills.



## 2017 SCHEDULE

January 30 - February 3	May 15-19
March 6-10	June 19-23
April 17-21	September 11-15

## LOCATION

**Construction Estimating Institute**  
5016 Calle Minorga, Sarasota, FL 34242



# Estimating Sitework Construction

**Earth Moving – Underground Utility – Roadwork**

**Class size is limited to 12 registrants.**

**Register Now!**

**Tuition:** \$1995

*Includes Tuition, Books & Materials.*

**DVD Homestudy**

**Version Available:** \$1995

*Includes DVD Video Library and All Course Materials.*

*"I now feel confident doing takeoffs in all aspects of sitework. I feel I am much more prepared to be an estimator today than I was prior to attending this course."*

—Matt Bluth  
*Markham Contracting*

*"After attending several seminars on construction, this course taught me more than any other because of the small class size and the instructor's confidence and knowledge. The instructor taught us that shooting from the hip is like having your address on Low Bid Lane"*

—Eric Paul-Hus  
*Hypower Inc.*

## SYNOPSIS

### DAY 1: ESTIMATING EARTHWORK

- Pre-bid investigation
- Plans and specifications
- Site visit and soil borings
- Pre-estimate checklists
- Area and perimeter calculations
- Cut/fill calculations: average end area method
- Soils shrink and swell
- Cut/fill calculations: grid cell method
- Soils classifications
- Matching equipment to soil type
- Excavation production
- Bulk excavation exercise

### DAY 2: ESTIMATING EARTHWORK

- Crew analysis
- Trucking optimization
- Bidding and mark-up discussion
- Equipment costing
- Road calculations
- Mass haul diagrams
- Earthwork "Rules of Thumb"

### DAY 3: ESTIMATING ROADWORK & PAVING

- Estimate slopes/shoulders
- Curb and gutter calculations
- Estimate and quantify asphalt paving

- Estimate and quantify concrete paving
- Estimate hauling costs
- Crew assemblies
- Estimate compaction

### DAY 4: ESTIMATING UNDERGROUND UTILITIES

- Estimating forms and formats
- Trench volume calculations
- Trenching productivity
- Pipe laying productivity
- Storm drainage exercise
- Materials costing

### DAY 5: ESTIMATING UNDERGROUND UTILITIES

- Equipment selection procedures
- Subsurface interferences
- Clearing and demolition
- Dewatering methods
- Specification analysis
- Safety requirements
- Complete the estimate
- Sanitary sewer exercise

**To register, call 800.423.7058 or register online at [www.ceihome.com](http://www.ceihome.com)**

This five-day course is designed for those who want to better understand the methods by which sitework construction cost estimates are developed. This course covers all the tasks required to **develop an accurate sitework estimate**. Students learn to calculate work quantities from engineering drawings, correctly adjust for material swell and shrink, assemble efficient crews, and determine productivity.

## WHO SHOULD TAKE THIS COURSE

- Beginning to Intermediate Estimators
- Anyone who quantifies cut and fill, underground utilities or road-building
- Real Estate Developers
- General Contractors
- Project Managers

## WHAT YOU WILL LEARN

This course consists of a full week of hands-on training in sitework estimating. It enormously improves and complements your knowledge and experience in sitework construction. Learn concise and proper methods required to prepare thorough, organized cost estimates. The training enables you to effectively evaluate the extreme range of sitework price quotations that are often received by the general contractor.

This course gives students the knowledge and skills necessary to assemble and organize all elements of an accurate sitework estimate. Learning is accomplished with testing and practical application via a series of hands-on exercises, problem solving, and discussions.

## UPON COMPLETION, STUDENTS WILL BE ABLE TO

- Accurately measure quantities of earthwork, utilities, and paving.
- Properly adjust the measured quantities of each allowing for swell, shrink, subsidence, and waste.
- Select appropriate equipment that represents a cost-effective approach to constructing the entire project.
- Determine accurate productivity rates for projects based on soil conditions, site restrictions, excavating depths, special requirements, etc.
- Calculate the production cost estimate of a project by using the crew analysis method of estimating.



## 2017 SCHEDULE

January 23-27	April 24-28
February 20-24	May 22-26
February 27 - March 3**	June 26-30
March 20-24	September 18-22

## LOCATION

**Construction Estimating Institute**  
5016 Calle Minorga, Sarasota, FL 34242

**\*\*Feb 27 - Mar 3 course held at Ohio Contractors Association**  
1313 Dublin Road, Columbus, OH 43215



# Successful Construction Management

**Class size is limited to 18 registrants.**

**Register Now!**

**Tuition: \$995**

*Includes Tuition, Books & Materials.*

*"Excellent class, and well organized! This class is key to becoming a more organized and plan-ready Project Manager."*

—Tommy Messina  
Cangelosi Ward  
General Contractors

*"After attending the construction management seminar, I know that I can take on any project that comes my way and make it a success. I would strongly suggest that every superintendent and project manager take this course as a requirement. You will not realize what you are lacking until you attend!"*

—Michael Weilbaeher  
Design Contractors

## SYNOPSIS

- Process based project management
- Core competencies of Project Managers
- Solutions to poor drawing quality
- The Work Breakdown Structure
- Solving "It's not in my scope"
- 27 pre-construction services needed
- Project management maturity model—CPM3
- The five process areas of project management
- The project initiating process
- The project selection process
- The project planning process
- Estimating planning time
- Keeping your job site safe
- Assuring project quality requirements
- How to hire the best subcontractors
- Creating realistic project schedules
- The best estimating methods and tools
- Buy-out vs. procurement management
- Risk management techniques
- 16 major areas of risk in construction
- Getting project "buy-in"
- Eliminating conflict on the project
- Controlling the project
- Earned Value Management and the smart PM
- Fulfilling your 5 key responsibilities
- Maintaining quality without sacrificing productivity
- Practical negotiating tactics
- Proven methods to prevent theft and vandalism
- Keeping people safe and cutting Worker's Compensation costs
- Solving disputes and conflicts
- Researching and evaluating your contractors bids
- The best ways to build and maintain teamwork
- Improving your listening skills
- Dealing with problem people
- How to change behavior in others without resentment
- Developing effective communication skills
- Understanding how leadership style affects performance
- The difference between leadership and management
- An expectation every boss has, but only 5% of supervisors know how to meet
- Managing the paperwork burden—using it to your company's advantage
- Maintaining discipline and company policy
- How listening added \$60,000 to a firm's profit
- Change orders—dealing with them more effectively
- Finding the best approach to improve subcontractor performance
- Surefire job productivity boosters
- Closing out the project

**Outstanding as a Team Building Training Course at Your Location – See Page 21**



Course attendees will learn the best project management processes in the world today. **Discover tips and techniques assembled from the combined experience and best practices of over 40,000 project managers.** Learn how to keep your projects on time and on budget. The tools you will take away from this course will enable you to manage your construction projects in a method that is truly world class!

## WHO SHOULD TAKE THIS COURSE

- Project Managers
- Future Project Managers
- Estimators
- Experienced Superintendents
- Company Owners
- Project Owners & Developers

## YOU WILL LEARN TODAY'S BEST PRACTICES IN PROJECT MANAGEMENT

Discover how to effectively manage a construction project from concept to closeout. Beginning with an overview of the construction management process and continuing through each project phase, you will gain insight into the meaning and application of real project management.

Experience actual scenarios, obstacles and real-world situations which challenge project managers. Your instructor's first-hand experience running both large and small projects encompasses the elation and satisfaction of bringing home a winner, as well as projects gone bad, and with resolute persistence, turned disaster into profits.

## GAIN INSIGHT FROM EXPERIENCED PROFESSIONALS

Learn how successful construction project managers:

- Effectively manage risk
- Resolve conflicts
- Build effective teams
- Navigate design changes & change orders
- Employ team development
- Complete projects in 10-30% less time

## WHY ATTEND THIS PROGRAM?

Effective management of a construction project is no easy task. The state-of-the-art methods taught in this program will make you a more efficient project manager by giving you techniques to help you complete projects on time and on budget. If you want to know how the best of the best do it, you need to attend this course!



## 2017 SCHEDULE

February 15-17	May 10-12
March 15-17	June 14-16
April 10-12	September 27-29

## LOCATION

**Construction Estimating Institute**  
5016 Calle Minorga, Sarasota, FL 34242



# Estimating & Bidding Techniques that Work

**Class size is limited to 18 registrants.**

**Register Now!**

**Tuition: \$995**

*Includes Tuition, Books & Materials.*

*"This is an outstanding class. I have attended several classes with CEI, and will continue to do so in the future."*

—Jason Crowson  
*MetroPower, Inc.*

*"Great source of real world training!"*

—Mike Graham  
*Graham Construction*

*"Excellent class. Provided many nuggets of information, and made me conscious of the many areas and aspects of construction."*

—Arthur Brannen  
*Brannen Development Co.*

## SYNOPSIS

- The changing construction market
- Major growth areas for contractors
- Specialization versus diversification
- Anticipating increased business costs
- Achieving success in competitive markets
- Improving bottom-line results
- How to structure an estimating system for your type of construction
- Correcting the causes of estimate errors
- Negotiating favorable subcontractor prices
- How to eliminate 90% of hidden costs
- Picking the work which creates risk
- Covering the risk by proper pricing
- Determining your company's project ability
- Ways to profit highly on small projects
- How much to reduce your price to get the big job
- Accurately predicting your competitor's bid
- Probability charts and graphs
- Developing a complete bidding system that works
- How to select the best price for each project



**To register, call 800.423.7058 or register online at [www.ceihome.com](http://www.ceihome.com)**

## Raise the profitability of your future jobs.

Attendees at this course will learn the best methods for properly pricing construction projects. Learn how to get the best prices from your subs and material suppliers. Discover new techniques for finding the most profitable jobs for your operation. Learn how to give your competition the low profit work and get the high profit jobs yourself. The tools you will take away from this course will immediately raise the profitability of your future jobs.

## WHO SHOULD TAKE THIS COURSE

- Company Owners and Officers
- General Contractors
- Project Managers
- Intermediate & Senior Estimators
- Building Contractors
- Residential Contractors
- Sitework Contractors

## WHAT YOU WILL LEARN

This course provides you and your team with clear, concise methods and guidelines for bidding and negotiating projects of all sizes.

Your estimators and staff learn each step of the bidding process, along with advanced techniques that cover how to pick the best jobs and which bidding process to apply.

When should you shop for better prices? When should you turn down an opportunity to bid? How do you know what the competition is doing? All of these questions and more are answered in this course.

## UPON COMPLETION, STUDENTS WILL BE ABLE TO

- Calculate the optimum mark-up for their company on various types of work
- Determine how much to raise or lower prices based on job size and backlog
- Apply a specific risk adjustment to price
- Negotiate better contracts with subs and suppliers
- Adjust price for equipment and management use factors
- Calculate the probable market price of the competition
- Submit bids that increase company profits



## 2017 SCHEDULE

March 1-2

May 3-4

## LOCATION

**Construction Estimating Institute**  
5016 Calle Minorga, Sarasota, FL 34242



# Winning Negotiating Strategies

**Class size is limited to  
18 registrants.**

**Register Now!**

**Tuition: \$995**

*Includes Tuition, Books & Materials.*

*"Excellent class that will save my  
company money."*

—Matthew Stewart  
*Carolina Roofing Solutions, Inc*

*"Great Class with an Instructor that  
knows his subject."*

—John Esposito  
*Espo Construction*

*"This was the best course that I  
have taken in a while. I learned  
more than I can list."*

—George Stish  
*CMS, Inc.*

*"Time is a constraint in our busy  
work schedules but this class was  
well worth the time!"*

—Salvatore Ruffino  
*HBE Corp.*

## SYNOPSIS

- Why negotiations must result in both parties winning
- If one leaves with an attitude of losing, both have lost
- Methods to achieve win/win
- How to reduce Money Left on the Table "MLOTT"
- Most contractors' largest contributor to profit or loss
- Quantify MLOTT by planning negotiations
- How to minimize MLOTT
- Switching emphasis from price to value
- Creating favorable opening positions offers
- Ways to establish who goes first
- How to justify your initial position
- Always leave yourself room
- How to collect information without showing your hand
- Probes that produce results
- Learn what is important to the other side
- Establishing power in your position
- The strong succeed
- How to find and stress your strengths
- Learn to grant concessions, not compromise
- Always get something in return
- Controlling increments is one key to successful negotiating
- Maintain a slow pace
- When to "split the difference"
- Broadening the scope to increase success
- How to achieve longer, larger agreements
- Find business arrangements that are peripheral to the contract
- Changing competitive negotiations to cooperative
- How cost breakdowns favor buyers
- Include personal and organizational concerns
- How to use emotional outbursts to your benefit
- Emotional outbursts are and should be for show
- When should emotions be utilized
- Understanding the other party's display of emotion
- How and when to walk away from the deal
- Always stage your exit
- Provide positions to renegotiate
- No agreement is a lose/lose
- Managing difficult situations
- Ultimatums are position restatements
- Replacing difficult negotiators
- Deadlines can help you
- Easy ways to get a little more

**This Course Can Be Presented at Your Location – See page 21**

Attendees at this two day course will learn and practice negotiating techniques to improve their bargaining ability in every construction scenario. Attendees will leave this course able to make better deals, from major contracts to minor every-day agreements. Whether buyer or seller, subcontractor or GC, supplier or purchaser, owner or contractor, you will learn how to reach agreements that get you more of what you want and leave the other party satisfied.

## WHO SHOULD TAKE THIS COURSE

- Project Managers
- Future Project Managers
- Estimators
- Experienced Superintendents
- Company Owners
- Project Owners & Developers

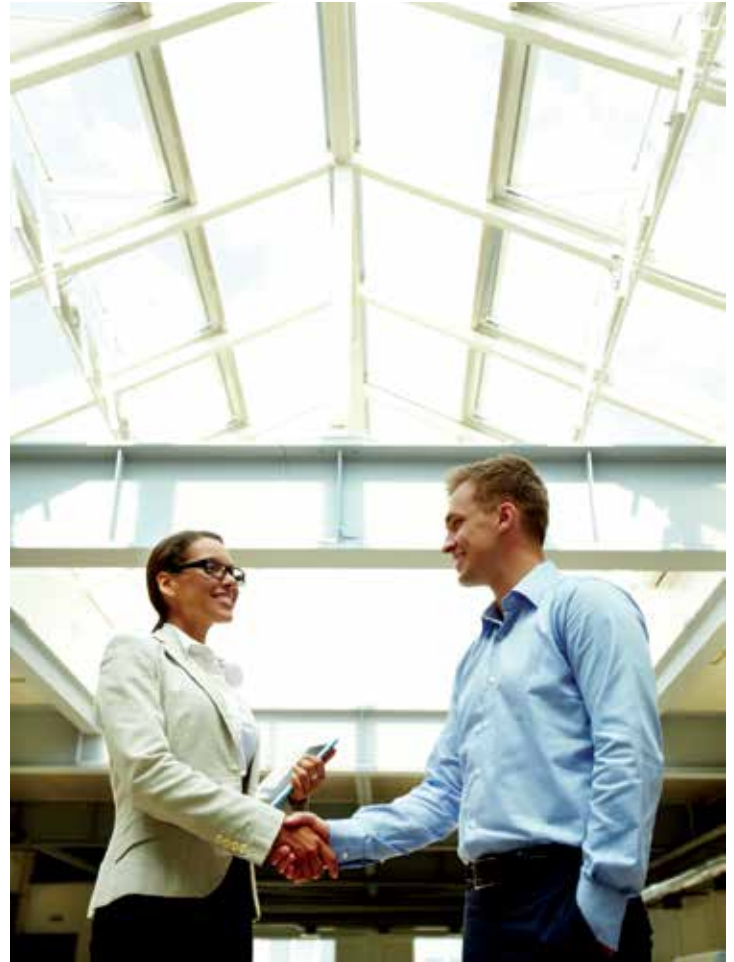
## WHAT YOU WILL LEARN

Negotiating permeates all levels of the construction industry. From foremen or field superintendents initiating a potential small plan change to teams of estimators/project managers and owner's representatives grinding out enormous design build contracts, success in negotiating determines profitability. Whether buyer or seller, subcontractor or GC, supplier or purchaser, you will learn how to reach better, longer-lasting agreements that more effectively meet your objectives while leaving all parties satisfied.

This course utilizes hands on participation in construction-specific negotiation scenarios from both the buyer and provider sides. Students will not only learn the best negotiation techniques available; they will practice these skills throughout the class. The curriculum covers many real-life construction industry examples, including contracts, subcontracts, change orders, purchasing, etc. Improved skills in the art of negotiating will have a positive effect at each and every level of the company's organization.

## WHY ATTEND THIS PROGRAM

There are many seminars available to the construction industry that provide valuable information about negotiating contracts. Most of these concentrate on the legal and economic impacts of the various contract clauses. This is not one of those seminars. This seminar develops the skills necessary to effectively practice the art of negotiating. Attendees will leave class ready to put these skills to use immediately.



## 2017 SCHEDULE

February 27-28

April 6-7

May 1-2

## LOCATION

**Construction Estimating Institute**  
5016 Calle Minorga, Sarasota, FL 34242



# Estimating Concrete Costs

**Class size is limited to 12 registrants.**

**Register Now!**

**Tuition: \$995**

*Includes Tuition, Books & Materials.*

**DVD Homestudy**

**Version Available: \$995**

*Includes DVD Video Library and All Course Materials.*

*"This class teaches the how and why of an effective detailed estimate which allows you to win more projects, increase profitability, and save the company money. I learned complete concrete estimating."*

—Talmadge A. James  
Dunn Building Co.

*"This course taught me how to do take-offs and how to price a job. Now I can work in the office as well as on site. Everyone involved in concrete construction should consider attending this course."*

—Garan Gallagher  
Euroway Construction Corporation

## SYNOPSIS

- Get acquainted with concrete
- Concrete terminology
- Categories of concrete costs
- General Costs for:
  - Forming
  - Placing
  - Reinforcing
  - Finishing
  - Equipment
- Essential forms and documentation
- Takeoff quantities of work
- Reinforcing costs for:
  - Footers/pads
  - Pile caps
  - Piers/pilasters/columns
  - Walls/beams
  - Slabs/wire or fiber fabric
- Shrinkage and temperature reinforcement
- Horizontal forming
- Job-built forms
- Tilt-up systems
- Pre-cast concrete
- Manufactured forming systems
- Discussion on:
  - Hot and cold weather concrete
  - Admixtures
  - Chemical sealers, compounds
  - Form releases, hardener
- Prepare a concrete bid
- Slabs on grade problems
- Footers and pads



**To register, call 800.423.7058 or register online at [www.ceihome.com](http://www.ceihome.com)**

Attendees of this two-day course learn to accurately estimate concrete costs. Using a real set of drawings, students perform a complete concrete takeoff and apply material and labor costs to assemble a complete estimate. Students leave with the knowledge to produce accurate concrete estimates using efficient and reliable estimating techniques.

## WHO SHOULD TAKE THIS COURSE

- Beginning to Intermediate Estimators
- Project Managers
- Supervisors working for General Contractors
- Concrete Subcontractors
- Employees of construction companies to which concrete costs are important

## WHAT YOU WILL LEARN

This two-day estimating course covers a multitude of different concrete cost categories, including purchasing, forming, reinforcing, finishing, and placing concrete. It covers all aspects of concrete construction with which the estimator must be familiar, including concrete terminology, construction types, concrete properties, chemical admixtures, forming systems, and curing materials. How each of these aspects affects the cost of concrete construction is covered in detail.

This course is designed to improve the skills and building knowledge the estimator draws upon while estimating the concrete portion of a project. A brief review of basic math and estimating procedures will be covered. Various concrete practice problems are presented. A working set of drawings will be assigned and estimated. Material and labor costs are presented, utilizing a cost data book and other references.

## UPON COMPLETION, STUDENTS WILL BE ABLE TO

- Prepare accurate estimates of concrete costs.
- Select cost-efficient methods of forming, placing, reinforcing, and finishing the concrete.
- Organize cost data in a clear and logical manner for use in a summary estimate.
- Apply realistic unit costs to the estimated material and labor quantities.
- Check and verify the total cost estimate using comparative analysis.



## 2017 SCHEDULE

January 30-31	May 15-16
March 6-7	June 19-20
April 17-18	September 11-12

## LOCATION

**Construction Estimating Institute**  
5016 Calle Minorga, Sarasota, FL 34242



# Estimating Earthwork Construction

**Class size is limited to 12 registrants.**

**Register Now!**

**Tuition:** \$995

*Includes Tuition, Books & Materials.*

**DVD Homestudy**

**Version Available:** \$995

*Includes DVD Video Library and All Course Materials.*

*"This course taught me about cost items that I wasn't taking into consideration in my bids. We learned how to properly plan productivity, forming the best crew, and new measuring shortcuts. Using the tools that I learned here, I'll be making my company more competitive."*

—Josh Clossey  
Clossey Excavating, Inc.

*"The instructor was a wealth of knowledge—both from the field and office end of the industry."*

—Phil Sabatino  
J. A. Neary Excavating

## SYNOPSIS

### DAY 1:

- Pre-bid investigation
- Plans and specifications
- Site visit and soil borings
- Pre-estimate checklists
- Area and perimeter calculations
- Cut/fill calculations:  
average end area method
- Soils shrink and swell
- Cut/fill calculations:  
grid cell method
- Soil classifications

- Matching equipment to soil type
- Excavation production
- Bulk excavation exercise

### DAY 2:

- Crew analysis
- Trucking optimization
- Bidding and mark-up discussion
- Equipment costing
- Road calculations
- Mass haul diagrams
- Earthwork "Rules of Thumb"



**To register, call 800.423.7058 or register online at [www.ceihome.com](http://www.ceihome.com)**



Estimating Earthwork Construction contains many assumptions and unknowns, which represents the greatest financial risk to the contractor. The most effective way to **minimize your risk** is to increase your estimating knowledge and skills. This course will teach the estimator correct guidelines for verifying quantities, adjusting soil swell and shrink, selecting efficient equipment and determining productivity.

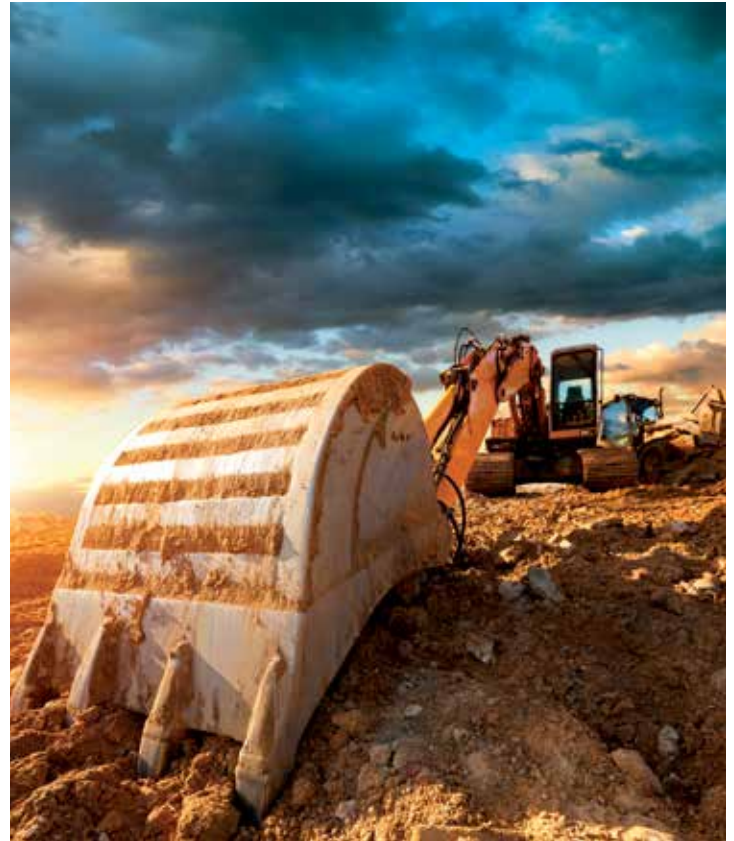
## WHO SHOULD TAKE THIS COURSE

- Beginning to Intermediate Estimators
- Anyone who quantifies cut and fill, underground utilities or road-building
- DOT employees
- Real Estate Developers
- General Contractors
- Project Managers

## WHAT YOU WILL LEARN

Upon completion of this course the student will be able to:

- Accurately measure quantities of cut and fill using both of the generally accepted methods of measurement:
  1. Average end area method
  2. Grid cell method
- Properly adjust the measured quantities of cut and fill, allowing for swell and shrink based on soil type and operation.
- Select appropriate equipment, both size and type, that represents a cost-efficient approach to constructing the earthwork portion of the project.
- Determine accurate productivity rates for projects based on soil conditions, site restrictions, excavating depths, special requirements, etc.
- Zero in on the true cost that incurs in the operation of specific machines.
- Extend the production cost estimate of a project by using the crew analysis method of estimating.
- Complete the earthwork estimate by combining the production estimate with the fixed costs in earthmoving.
- Convert the cost estimate to a correct bid by incorporating the four basic pricing premises:
  1. Business plan pricing
  2. Asset utilization
  3. Risk analysis
  4. Market conditions



## 2017 SCHEDULE

January 23-24	April 24-25
February 20-21	May 22-23
February 27-28**	June 26-27
March 20-21	September 18-19

## LOCATION

**Construction Estimating Institute**  
5016 Calle Minorga, Sarasota, FL 34242

**\*\*Feb 27-28 course held at Ohio Contractors Association**  
1313 Dublin Road, Columbus, OH 43215



# Estimating Underground Utilities

**Class size is limited to  
12 registrants.**

**Register Now!**

**Tuition: \$995**

*Includes Tuition, Books & Materials.*

**DVD Homestudy**

**Version Available: \$995**

*Includes DVD Video Library  
and All Course Materials.*

*"The instructor's passion and course content kept me interested and anxious to return each day. I would encourage all persons interested in sitework construction estimating to experience this course."*

—Don Swasing  
*Schlouch Inc.*

*"I think everyone at every level of estimating should take this course."*

—Robert Astephen  
*Prime Time Construction*

*"This course exceeded my expectations!"*

—James Cotton  
*Cook Concrete  
Excavation & Utilities*

## SYNOPSIS

### DAY 1:

- Trench volume calculations
- Trenching productivity
- Pipe laying productivity
- Pipe trench assemblies
- Storm drainage exercise
- Materials costing
- Pre-bid investigation
- Performing pre-estimate checklists
- Analyze sites and soil borings
- The bidding procedure
- Estimating forms and formats
- Swell and shrink
- Material weights and swell factors
- Prepared exercises
- Daily production estimates
- Calculate productivity
- Allow for time at structure locations
- Adjust productivity for subsurface interference
- Apply crew cost to estimated productivity
- Test estimating skills with problem solving exercises

### DAY 2:

- Equipment selection procedures
- Subsurface interferences
- De-watering methods
- Specification analysis
- Safety requirements
- Sanitary sewer exercise
- Clearing and demolition
- Drainage pipe and miscellaneous structures
- Estimating ground water control
- Format of the estimate
- Basic cost data
- Complete the bidding package
- Effects of interference, interruptions and the unexpected
- OSHA trenching excavation standards



**To register, call 800.423.7058 or register online at [www.ceihome.com](http://www.ceihome.com)**

This course is for new estimators, field personnel and all other construction professionals who want to acquire a fundamental understanding of the principles of underground utility construction cost estimates. The course is designed to improve costing, pricing, and production techniques of underground utility contractors on private and government projects.

## WHO SHOULD TAKE THIS COURSE

- Underground Utility Workers
- Sitework Contractors
- Earthwork Contractors
- Developers
- New Estimators
- DOT Employees

## WHAT YOU WILL LEARN

This program concentrates on the specific problems encountered while estimating varying costs of underground utilities. Solutions for items such as interferences, work stoppages, and unanticipated conditions are covered in detail.

This course provides the estimator with a practical and time-saving approach to quantity calculations, soil analysis and water tables. It covers how to accurately determine the productivity rates upon which to base your bid.

## UPON COMPLETION, STUDENTS WILL BE ABLE TO

- Perform accurate trench volume and backfill calculations.
- Verify the engineer's quantities.
- Foresee project complexities and installation difficulties.
- Assemble crews for maximum efficiency.
- Correctly gauge productivity.
- Improve estimate accuracy.



## 2017 SCHEDULE

January 26-27	April 27-28
February 23-24	May 25-26
March 1-2**	June 29-30
March 23-24	September 21-22

## LOCATION

**Construction Estimating Institute**  
5016 Calle Minorga, Sarasota, FL 34242

**\*\*March 1-2 course held at Ohio Contractors Association**  
1313 Dublin Road, Columbus, OH 43215



# Estimating Roadwork and Paving

**Class size is limited to 12 registrants.**

**Register Now!**

**Tuition: \$595**

*Includes Tuition, Books & Materials.*

**DVD Homestudy**

**Version Available: \$595**

*Includes DVD Video Library and All Course Materials.*

## 2017 SCHEDULE

January 25

February 22

March 3\*\*

March 22

April 26

May 24

June 28

September 20

## LOCATION

**Construction Estimating Institute**

5016 Calle Minorga  
Sarasota, FL 34242

**\*\*March 3 course held at  
Ohio Contractors Association  
1313 Dublin Road, Columbus, OH 43215**

## SYNOPSIS

- Estimate slopes/shoulders
- Curb and gutter calculations
- Estimate asphalt paving
- Estimate concrete paving
- Establish crew costs
- Estimate hauling costs
- Estimate from typical details
- Calculate compaction production

## WHO SHOULD TAKE THIS COURSE

- Road & Highway Contractors
- Asphalt & Concrete Pavers
- Commercial Contractors
- Developers
- DOT Employees

## WHAT YOU WILL LEARN

This program teaches the primary aspects of estimating roadwork and paving construction. It provides the estimator with the skills necessary to assemble a detailed and accurate estimate of this scope of work. Practical experience is gained throughout the course using hands-on exercises and problem-solving challenges.

## UPON COMPLETION, STUDENTS WILL BE ABLE TO

- Implement a structured system for determining job costs by accurately assessing equipment, labor, material and other service costs involved in the completion of roadwork projects.
- Determine cut and fill quantities in road-way excavations, working from cross sections and profiles.
- Increase work efficiency and control of the project.
- Accurately calculate and apply equipment production rates to the estimate.
- Confidently estimate all major aspects of paving construction, including: asphalt and concrete materials, subgrade preparation, curb and gutter.

*"We have sent several of our estimators and the results have been fantastic. They are more organized and we see better bidding results!"*

—Paul Pate  
*Pate Asphalt Systems*

**To register, call 800.423.7058 or register online at [www.ceihome.com](http://www.ceihome.com)**

# Training at your Location



CEI can design a private training class and deliver it directly to you, either in your office or at a nearby meeting facility. With private training there is no need for your staff to travel and no associated lodging and airfare costs. Plus, you will have your staff on hand should the need arise for them to tend to a company related issue during training. You can choose one of our pre-designed classes or pick and choose items from our catalog to customize a class for your company's needs.

*"CEI designed and delivered a negotiating course at our annual employee meeting. Between the instructor's knowledge and the course content, it had a greater impact on our profits than we ever expected."*

## TRAINING DESIGNED FOR YOU

Any of the courses in this catalog can be customized to meet your company's needs. If your training needs involve parts of different courses, you can combine them to create a new course.

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Safety                           | <input type="checkbox"/> Project Supervision                | <input type="checkbox"/> Building Job Descriptions       |
| <input type="checkbox"/> Estimating Building Construction | <input type="checkbox"/> Successful Construction Management | <input type="checkbox"/> Improving Jobsite Productivity  |
| <input type="checkbox"/> Negotiating Contracts            | <input type="checkbox"/> Commercial Blueprint Reading       | <input type="checkbox"/> Better Risk Management          |
| <input type="checkbox"/> Estimating Earthwork             | <input type="checkbox"/> Estimating Roadwork and Paving     | <input type="checkbox"/> Negotiating for Field Staff     |
| <input type="checkbox"/> Bidding Strategies               | <input type="checkbox"/> Process Improvement                | <input type="checkbox"/> Equipment Buying versus Renting |
| <input type="checkbox"/> Underground Utilities            | <input type="checkbox"/> Construction Math                  | <input type="checkbox"/> Lead Foreman Training           |
| <input type="checkbox"/> Estimating Concrete Costs        | <input type="checkbox"/> Closing out a Project              | <input type="checkbox"/> Negotiating Purchases           |
| <input type="checkbox"/> Change Order Management          | <input type="checkbox"/> Construction Accounting            | <input type="checkbox"/> Bridging the Communication Gap  |
| <input type="checkbox"/> Scheduling                       | <input type="checkbox"/> Civil Blueprint Reading            | <input type="checkbox"/> Estimating Software             |
| <input type="checkbox"/> Jobsite Productivity             | <input type="checkbox"/> Project Planning                   | <input type="checkbox"/> Your choice/other _____         |

## PRICING

The prices listed below are all inclusive. There are no additional charges for materials or travel. All you need to supply is a meeting room and the personnel to be trained.

**1-day training:** \$5,500

**2-day training:** \$7,900

**3-day training:** \$9,900



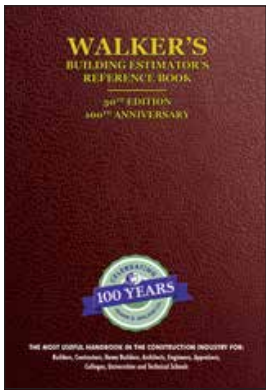
**Hold a training session at your quarterly or annual meeting!**

**For more information, call 800.423.7058**

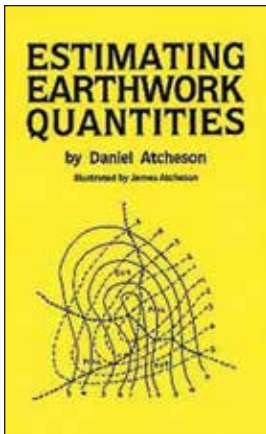
# Publications



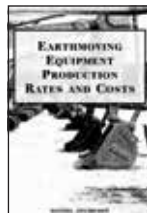
**The 2017 BNI General Construction Costbook** is broken down into material and labor costs, to allow for maximum flexibility and accuracy in estimating. The book contains over 12,000 unit costs to provide you with cost coverage for all aspects of construction – from sitework and concrete to doors and painting. You'll find this costbook data invaluable when preparing detailed estimates, bids, checking prices, and calculating the impact of change orders. What's more, you get detailed man-hour tables that let you see the basis for the labor costs based on standard productivity rates. The *BNI General Construction Costbook* also contains extensive reference tables that provide supporting information, cost derivations, man-hours, estimating tips and other related information. 572 pages. **\$99.95**



**The Building Estimator's Reference Book – 30<sup>th</sup> Edition** is recognized worldwide as the authoritative source for comprehensive cost estimating information. Walker's *Building Estimator's Reference Book* is organized in 16 CSI Division chapters and contains detailed construction cost data, reference tables, charts and diagrams for quick reference, plus detailed explanations of all possible variables affecting job costs. This combination of quantities of labor and material with supportive reference data enables the estimator to accurately determine variable components of unit costs. This book consolidates reference material from the supply side of the industry and displays hundreds of pages of charts, tables, drawings and unit cost tables in appropriate sections. The 100<sup>th</sup> Anniversary Edition belongs on every construction pro's desk. 1,648 pages. **\$119.95**



**Estimating Earthwork Quantities** is a unique book that simplifies estimating cut and fill for the excavation contractor. The author, Daniel Atcheson, was a senior instructor at Construction Estimating Institute and draws upon over 30 years of construction experience as he presents a practical, systematic approach to estimating even the most complex earthwork projects. 223 pages. **\$59**



### **Bonus! Also includes:**

**Earthmoving Equipment Production Rates & Costs** was written by Daniel Atcheson for sitework contractors. This comprehensive text teaches how to more accurately assess what machinery is best to use for any given job. It will also teach you how long equipment will be required and how much it will cost to move each cubic yard of earth. Equipment production rates, hourly costs, and unit production costs are covered in detail. 489 pages.



### **DELUXE BOOK PACKAGE**

**Includes:** 2017 BNI General Construction Costbook, The Building Estimator's Reference Book - 30<sup>th</sup> Edition, Estimating Earthwork Quantities, and Estimating Equipment Production Rates & Costs. **\$249**

**Order Today! | 800.423.7058 | [www.ceihome.com](http://www.ceihome.com)**

# Blueprint Reading—DVD Training



**The Blueprint Reading training programs on DVD** provide essential skills and knowledge that virtually every employee in a construction company or organization should possess. These programs are also beneficial for beginning to intermediate office staff members that are involved with sales and customer service.

- Learn to properly read construction drawings
- Accurately interpret construction drawings
- Increase and speed up comprehension
- Increase plan reading proficiency and accuracy
- Effective in-house training for new hires
- Courses include DVD video library and all training materials

**Available  
as a Live Course  
at Your Location –  
See Page 21**

## CIVIL BLUEPRINT READING PROGRAM

Construction company field and office employees can increase efficiency and reduce avoidable errors with a thorough understanding of civil blueprints and engineering drawings. Students taking this course learn to completely read and understand civil blueprints. This home study course covers engineering plans for earthwork, underground utilities, and roadwork and paving. Learn where to look, how to visualize what a drawing is showing, where to find other views—such as sections and details—and ways to speed up comprehension. **\$199**

## RESIDENTIAL/LIGHT COMMERCIAL BLUEPRINT READING PROGRAM

Construction field personnel and office employees can increase their efficiency and reduce avoidable errors by being able to thoroughly understand construction blueprints and drawings. Students taking this course learn to completely read and understand residential and light commercial blueprints. This home study course covers architectural, structural, mechanical, and electrical drawings used in construction projects. Learn where to look, how to visualize what a drawing is showing, where to find other views—such as sections and details—and ways to speed up comprehension. **\$199**

## DELUXE BLUEPRINT READING PROGRAM

**Includes:** *Civil Blueprint Reading Program + Residential/Light Commercial Blueprint Reading Program*

The deluxe blueprint reading home study program includes the civil blueprint reading course and the residential/light commercial blueprint reading course. **\$295**

# Tools



## MEASURE MASTER PRO

Feet-Inch-Fraction and Metric Dimensional Calculator

Get professional results every time with this handy and easy-to-use tool for projects involving measurements. Work in and convert between feet-inch-fractions, decimal feet-inch-fractions, yards, meters, centimeters and millimeters as well as areas and volumes. Quickly solve circumference, circle area, and arcs.

- Work in and convert between dimensions, including metric
- Linear, area and volume measurements; square-up and perimeter
- Find weight and weight per volume
- Instant solutions for circle area, circumference, arcs and more
- Board feet
- Solve unit cost and pricing

For designers, craftsmen, tradespersons, fabricators, woodworkers and technicians. **\$39.95**



## SCALE MASTER PRO XE

Fast and Easy Linear, Area and Volume Takeoffs

This tool makes it easy to do linear, area and volume takeoffs with speed, accuracy and confidence when estimating, bidding or planning. You can also connect it to your PC with an optional interface cable and transfer rolled values directly into commonly used spreadsheets or estimating programs, saving time and reducing the potential for costly transcribing errors.

91 built-in scales—50 U.S. (feet-inch) and 41 metric—help you measure plans, blueprints, and maps for maximum versatility in architectural, engineering and civil/map scaling. Save up to 10 custom scales for calibrating out-of-scale plans and plan books. Easily store a new scale permanently into the device for future use.

For contractors, estimators, engineers, landscapers, excavators, electrical contractors, HVAC, fencing specialists, pavers or anyone needing fast, accurate takeoffs from plans and blueprints. **\$99.95**

Optional PC Interface Cable: **\$39.95**

## ESTIMATOR'S TOOLKIT – \$169

Includes Scale Master Pro XE (\$99.95), PC Interface Cable (\$39.95), and Measure Master Pro (\$39.95)

## **Construction Estimating Institute**

5016 Calle Minorga  
Sarasota, FL 34242

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# **2017 Construction Course Catalog**

## **Training for New and Experienced:**

- **Building Estimators**
- **Project Managers**
- **Sitework Estimators**



**Experience industry-renowned training with Construction Estimating Institute on beautiful Siesta Key in Sarasota, Florida!**