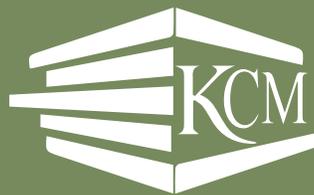


COST ESTIMATING PROFESSIONALS



KEOUGH
CONSTRUCTION MANAGEMENT
Managing Success One Project At a Time

Accuracy, Cost, Expertise

KEOUGH (KCM), a Professional Cost Estimating Company, is the preferred choice of Owners, Architects and Engineering firms in New England for 3 significant reasons—ACCURACY, COST, EXPERTISE.

ACCURACY: Early cost certainty is why Architects and Owners engage KEOUGH at the outset of a project. Based on our experience and history of performance, Designers and Owners trust us unequivocally to develop the initial scope and budget for a project and with an appropriate level of design contingency. ***This ability to be accurate is the overwhelming reason why Keough is a trusted Cost Estimating firm.***

TRUST: is the confidence clients place in our work, and this is a virtue that can only be earned through years of repetition and performance. Our reputation and proven track record in the construction industry is based on our ability to deliver Independent and Professional Cost Estimates that are true, comprehensive and never over-stated. Our clients trust what we tell them and they commit resources based on our cost estimating information.

EXPERTISE: In construction, experience goes hand-in-hand with insight. At KCM we apply our years of learned knowledge to every situation we meet. KCM's cost estimating service is specifically designed to provide the maximum amount of cost information at the earliest possible time during the planning and design phases of types of construction projects. This helps our clients understand the specifics of a project, early and with confidence, that the information is correct and comprehensive.

6



Key Reasons We Excel at Cost Estimating Service

1

WHO

KCM is based in Rhode Island & Massachusetts, and has Estimated over \$1 Billion in Building Projects over the Past 5 Years, with millions of dollars of current projects in the pipeline. "WHO" we are is the most reliable Cost Estimating Company in New England !

2

WHEN

Engaging KCM at the conceptual or "feasibility" phase of a project is where we really shine—Decisions made during the early design phases, typically commit 80% of the project budget. Refer to our "COST CERTAINTY CURVE" diagram to see exactly where KCM brings value and savings in the life of a design and construction project.

3

WHAT

We are Independent Estimators that work with Architects, Designers and Engineers to Align Design Intent with a Budget. "What" we do is assess various design options, provide current real-world cost data, develop detailed cost estimates, and participate in value engineering exercises .

4

WHERE

Our cost estimating efforts can begin at any level the Designer chooses to hire us. Typically we begin with the Concept estimate for the proposed program. This estimate will carry with it a level of contingency correctness. This estimate will serve as the "Cost Model" for the project and will be updated to reflect the additional information and details as the project evolves.

5

HOW

KCM is extremely proficient in reviewing and coordinating peer estimates to align with the proper scope of work intended by the architect and design team. Our cost estimating procedures are designed to ensure that each element of the project is well defined and accounted for in the estimate.

6

WHY

KCM and our Designer clients share a strong bond of trust when it comes to developing Accurate, Independent and Professional Cost Estimating Estimates. When engaging KCM to provide cost services, our designer clients can expect to proceed with their design work with confidence, knowing that the options and creative solutions to building and construction needs are associated with legitimate, real cost.



1. WHO

KEOUGH serves all of New England from its offices in Rhode Island and Massachusetts. KCM has several billions of dollars of built construction in-place, and in 2015, we have hundreds of millions of dollars-worth of projects in the pipeline in the markets of Higher Education, K-12, Civic/Public, Power/IT, Manufacturing, Bio/Pharma, Healthcare, Commercial and Advanced Technology.

Primarily, KCM performs cost estimating services on behalf of our Architect and Engineering clients, but we are also engaged by the owner/client as well, depending on the project or criteria. Regardless of who engages us, our goal is to provide the highest level of cost accuracy as early in the project lifecycle as possible.



- Estimate Centric
- Early Cost Certainty Philosophy
- Feasibility / Conceptual Cost Estimating
- Schematic Design - 30% Documentation
- Design Development - 60% Documentation
- Construction Documents
- Value Management & Life Cycle Costs
- Parallel Estimating Services
- CSI Master Format & GSA Level 1-V Format
- Benchmarking & Database of Current Costs

ESTIMATING CONTINGENCIES

- Conceptual/Feasibility +/- 20%
- Schematic Design +/- 10%
- Design Development +/- 5%
- Permit Set Documents +/- 1%

2. WHEN



Typically, an Architect/Engineering firm engages KCM at the conceptual or “feasibility” phase of a project—this is the timeframe where we distinguish ourselves from the pack. Sound financial decisions are based on fact, not subjective opinions. Establishing accurate “cost-to-scope” benchmarks through independent estimating enables our Architectural clients to do their work confidently. Decisions made during the early design phases, typically commit 80% of the project budget. Developing a strong foundation for the project is critical. Cost development and estimates are provided to our clients at stage-appropriate intervals. We provide: full scope cost modeling, estimating, and value engineering services; independent peer review, utilizing comparative and detailed analyses; rough order of magnitude; conceptual design; schematic design and basis of design (BOD); control and GMP estimates (i.e. 10%,30%, 60%, 90%); issued for construction (IFC); pre-purchase survey; site assessment and benchmarking.

Table A. Cost Certainty Curve

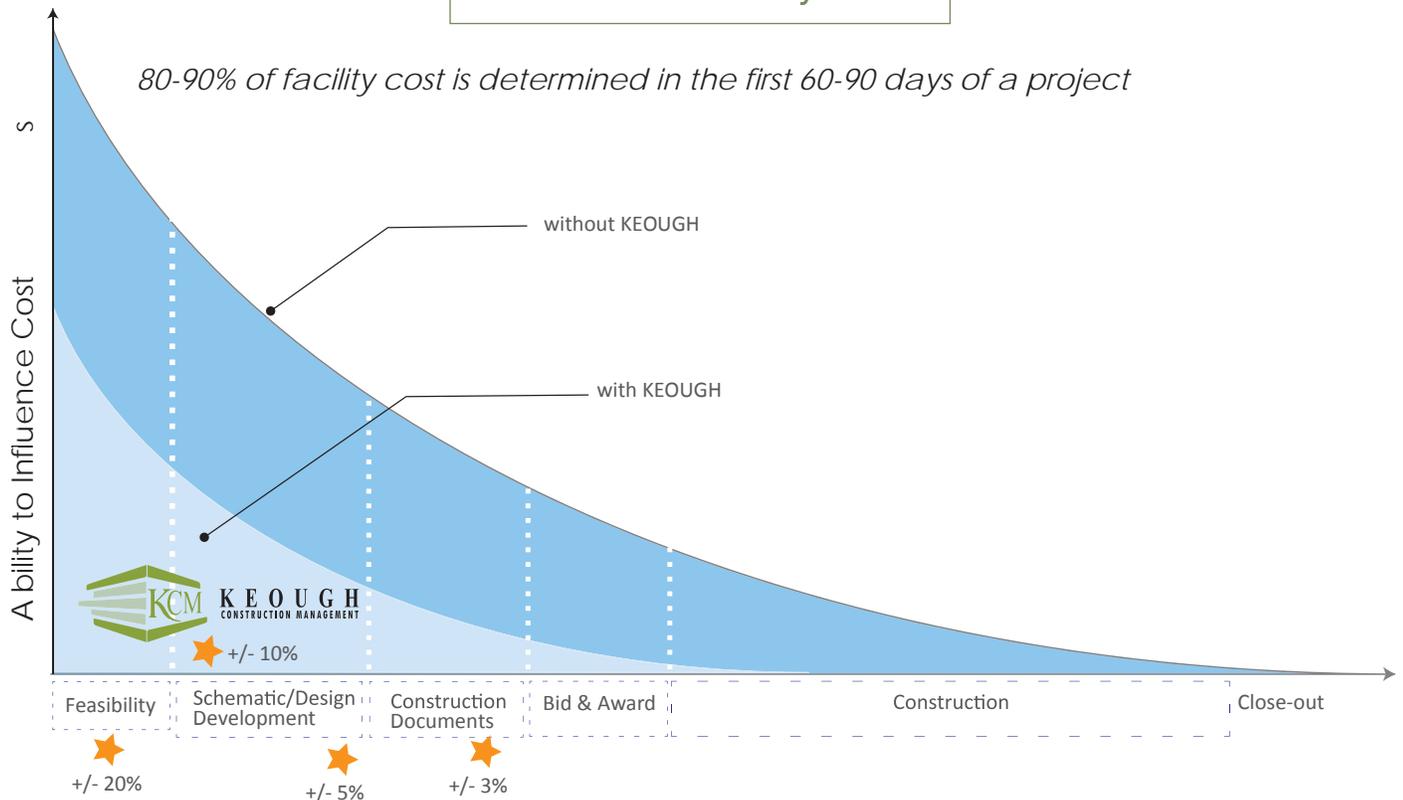


Table A. illustrates what we term the Cost Certainty Curve, where we demonstrate the life-cycle and phases of a project, and the area where we are typically effective in providing better cost management. From this launching point we prepare estimates at regular intervals through the construction document phase, depending on project type and contract type.

3. WHAT



We are Independent Estimators that work with Architects, Designers and Engineers to Align Design Intent with a Budget. **“What” we do is assess various design options, provide current real-world cost data, develop detailed cost estimates, and participate in value engineering exercises.** As your cost estimator, we can assess various design options, provide current real-world cost data, develop detailed cost estimates, and participate in value engineering exercises. Only a skilled, independent cost estimator engaged on the behalf of the project team can truly provide this assessment.

PROACTIVE/MODERN COST ESTIMATING

KCM’s ability to provide accurate cost estimates, with very early and conceptual information, has helped us establish budgets on projects ranging from \$1 million to over \$200 million.

As an independent service, we provide in-house architectural, civil, structural, mechanical, electrical, plumbing, fire protection, and technology cost estimating to Owners and architectural firms throughout New England. This service is of value to the Owner since in-house capabilities eliminate any perceived conflict of interest between the project team and any future bidders. It is also of particular significance when the Value Engineering process is undertaken because of our first-hand knowledge of all aspects of building construction.

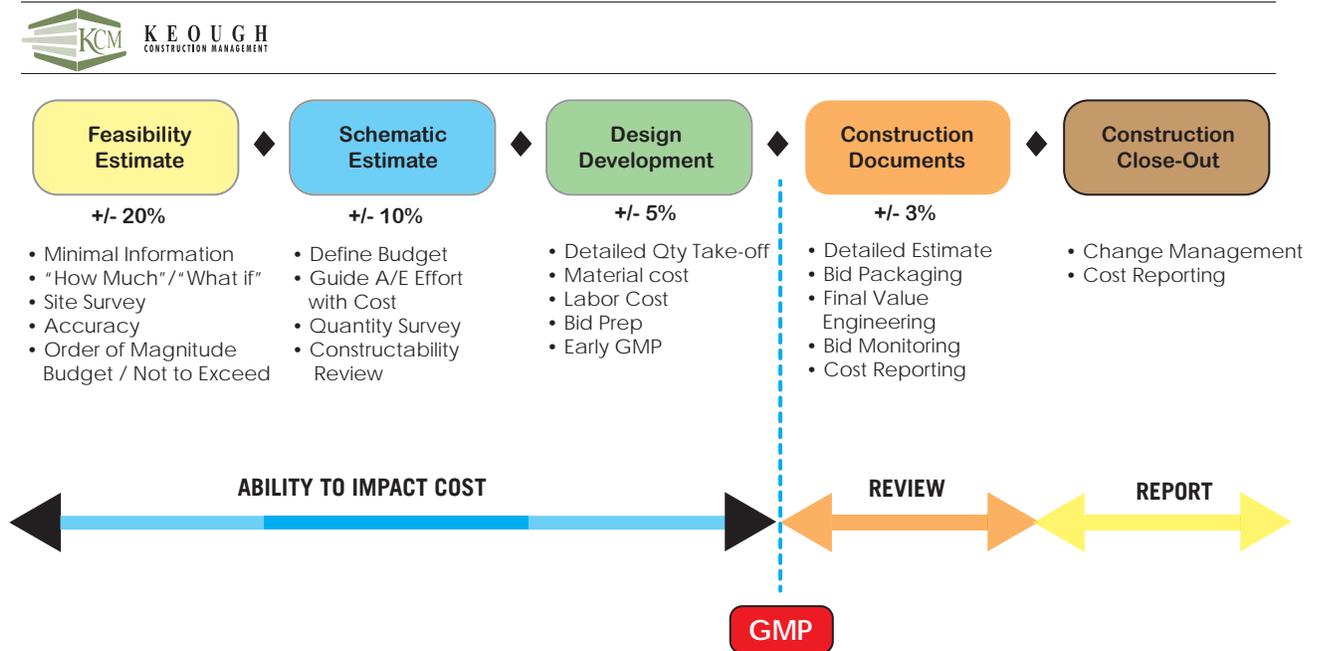
Accurate and well-defined cost estimates are critical to the success of every project. KCM's estimators specialize in providing accurate construction cost estimates from the initial programming phase through the detailed design and construction phases. Our cost estimating procedures are designed to ensure that each element of the project is well defined and accounted for in the estimate format.



4. WHERE

Our cost estimating efforts can begin at any level the Designer chooses to hire us. Typically we begin with the Concept estimate for the proposed program. *The Conceptual phase is "WHERE" we can impact cost control the most, significantly improving value working closely with the designer to compare, price and model conceptual options.* This estimate will carry with it a level of contingency correctness. This estimate will serve as the "Cost Model" for the project and will be updated to reflect the additional information and details included on the Schematic, Design Development, and Construction Documents. We work with the Architect throughout the design phase to ensure design components align with available funds. Our final cost estimate, is used to benchmark against the general contractors estimate or evaluate the competitive bids received for the various elements of work. This continuous estimating process works to avoid possible bid day disappointment of high bid prices and insures that on bid day the project is within budget.

ESTIMATING PHASES



5. HOW

KEOUGH has a "Contractor's Mindset" and we will uncover potential issues before they arise. This is "HOW" we approach cost estimating, reconciling design approach with real-world construction knowledge.

Architectural / Civil / Structural Cost Estimating

KCM accounts for site development, utilities, structural systems, exterior envelope systems, finish systems such as floors and doors, and equipment specialties relative to the architecture or building type. We can develop or tailor the project estimate to your format such as a “Building Component Format (or lack of a format or whatever you term this stage),” i.e. foundations, structure, exterior walls, finish trades, etc., which facilitates making comparisons and developing alternative solutions. Our estimating format provides a means of creating an audit trail from the initial estimate to the project’s completion.

Mechanical / Electrical / Plumbing Cost Estimating

Our staff also understands the M/E/P systems common to various facilities and will work with the engineers to evaluate different systems and cost models. All estimates are developed in a material and labor format, which enables KCM and the Owner to perform comprehensive bid evaluations and change order reviews.

VALUE ENGINEERING

Throughout the design phase, KCM will propose value engineering (VE) alternatives to the Design team. To us, value engineering is the systematic analysis and exploration of options to stay on budget or save costs. Thus, the ultimate objective of value engineering is to preserve the look and function of the facility, while finding alternatives to lower the cost.

Although VE can save clients substantial dollars, it is much more than a simple cost-cutting exercise. When we conduct a VE session, we will evaluate, at a minimum, first cost, schedule impacts, constructability issues, and life-cycle costs including capital, operating, maintenance expenses, and energy and systems costs from MEP systems to building envelope. The overall impact will minimize the total life-cycle costs during the functional life of the facility.

Systems analysis is at the center of the overall VE effort. Typical systems include sitework, foundations, structural, architectural, mechanical and electrical, and exterior enclosure. During the systems review, we will make recommendations, which focus on construction feasibility, availability of materials and labor, installation time, associated costs and economies, and the impact on other building components.

Our experience with VE has shown that the best results occur during the Design Development phase. The team meets at pre-determined intervals to identify alternative materials, methods of construction, and issues affecting the schedule and operations. Each item is evaluated and accepted or rejected depending on the total impact on cost, function, program, schedule, and overall needs.

6. WHY KEOUGH ?



Why KEOUGH? Simply, we represent your best interests, and we are aligned solely with your goals, and the goals of the project. As a Professional Estimating Service, KCM functions as an extension of your team; we adopt your agenda as our own, we deliver accurate cost in a transparent, open and collaborative manner.

OBJECTIVITY. Being independent and vendor neutral best meets your goals, budget and timeline.

ON-BUDGET. KCM’s due diligence early in the design process, as well as value management during the design phase, helps to make sure every project dollar is spent efficiently.

TEAMWORK. As an extension of your team, KCM can identify efficiencies, develop alternatives and save you time and money.

KCM's Workflow Process

SITE INVESTIGATIONS- Site investigations are crucial to the success of an estimate. KCM examines and document access restrictions, area climate, utilities, construction facilities and other conditions unique to the site.

QUANTITY SURVEYS- The quantities developed by KCM are some of the most detailed, comprehensive listings possible. Drawings are studied for interference's and conflicts, omissions or duplications. Plan views are compared to details and sections. The quantities are evaluated for waste amounts and included as appropriate.

DETERMINATION OF CONSTRUCTION METHODS- Individual parts of the project are analyzed for construction methods. KCM looks at the scope, conformance to the documents and needs of the project. This involves the time of year for construction (weather conditions), completion status of other work (ease or difficulty) and other site specific requirements.

PRICING OF MATERIALS AND EQUIPMENT- Once the materials and equipment are identified, KCM solicits vendor quotations. These are documented on individual vendor quote sheets and kept as part of the estimate backup information.

DETAILING OF INDIRECT COST- An integral part of each estimate is the cost of the indirect cost on the project. At KCM, these include items such as mobilization and demobilization, staffing, temporary buildings and construction, temporary utilities, job office expenses, small tools and consumables, insurance, taxes, home office support and finance expenses.

ESTIMATE/BID EVALUATIONS- Our detailed estimates are used in performing analysis on other estimates and /or bid amounts. Comparisons and evaluations are started on a major division by division basis. As conditions warrant, the analysis can continue down to specific line items in the estimate. At the end of the analysis, there are no unanswered questions.



K E O U G H
CONSTRUCTION MANAGEMENT

WHY KEOUGH ?

- Billions of Dollars of Estimated Work in New England
- Trusted Cost Advisor to Designers and Engineering Firms
- Decades of COST ESTIMATING Experience
- Estimate Centric Methodology
- Early Cost Certainty Philosophy
- Collaborative / Engaging / Accurate
- 80% of Project Work is Repeat Work for Satisfied Clients

Client Sampling

CVS / HEALTH
University of Rhode Island
General Dynamics (Electric Boat Division)
State of Rhode Island
Rhode Island College
Roger Williams University
Skyzone
Rhode Island Convention Center Authority

Architects & Engineers

Annino, Inc.
Brewster Thornton
Building Engineering Resources (BER)
Bargmann Hendrie & Archetype (BH&A)
Cube 3 Studio
Desman Associates
Durkee Brown Viverios & Werenfels
Edward Rowse & Associates
Kaestle Boos & Associates (KBA)
Kite Architects
Lamborghini Feibelman & Associates
Lerner Ladds & Bartels (LLB)
Lonardo Associates
Newport Collaborative Architects (NCA)
Payette Architects
Robinson Green Beretta Architects (RGB)
Schlemmer Algaze & Associates (SAA)
Stone Bridge Architects
Tecton Architects
Vanderweil Associates
Vision 3 Associates
Wilson Architects



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