

Four BT, LLC

Technology, cost data, and services supporting the efficient renovation, repair, & sustainability of the built environment - buildings, transportation, utilities.

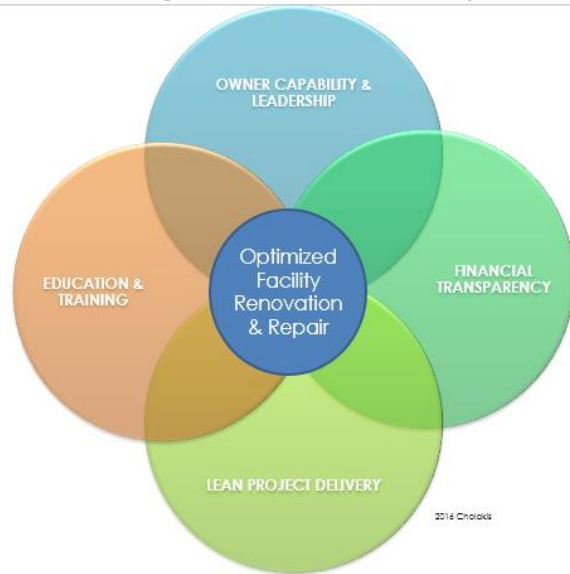


The History of Job Order Contracting

The LEAN Integrated Construction Project Delivery Method

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The United States Department of the Army is attributed with initially developing and deploying Job Order Contracting during the early 1980s. It did so in response to a growing need for increasing and unsupportable demands for construction throughout Europe. Traditional design-bid-build (DBB) construction delivery was too inefficient for the large numbers of renovation, repair, and sustainment/maintenance projects. Associated delays were negatively impacting the Army's mission.

An initial process framework was put in place that would later be improved to become what we now know as Job Order Contracting, JOC. The new method was designed to shorten procurement and overall project delivery times while also maintaining quality.

Since the initial European implementations, JOC was further developed and validated by the U.S. Department of Defense: West Point Academy in 1985, and multiple United States Air Force bases in 1986. The United States Air Force (USAF) has since gone on to become one of the largest, and perhaps most refined, user of Job Order Contracting to this day. Job Order Contracting goes under the name of SABER at USAF bases throughout the world. Retired USAF and other DOD personnel who now work in other public sectors brought their knowledge with them.

JOC use significantly expanded during the 1990's, and companies like 4Clicks Solutions, LLC filled the need for dedicated JOC software solutions and JOC training programs to support lower cost and more consistent deployment of Job Order Contracts. Cost data from the RSMMeans Company, LLC was used primarily in support of Federal Government JOC / SABER programs.

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Non-DOD Federal Government entities also began to adopt Job Order Contracting, and continue expand usage to this day. Examples include the Department of Interior, General Services Administration / Public Building Services, Federal Aviation Administration, National Institute of Health, National Parks Service, United States Post Office, and the Veterans Administration.

Subsequently State, County, and Local Governments, Transportation, Education, and Healthcare entities have begun to use establish Job Order Contracts. The later are relatively new to JOC and are learning to improve their implementations and deployments of this LEAN construction delivery method.



Research, surveys, and case studies jointly validate the benefits of Job Order Contracts and/or Job Order Contracting versus traditional construction delivery methods. Though all highlight that JOC Programs must be implemented properly: in an objective, transparent manner, and based upon LEAN best management practices and managed by competent Owners.¹

Annual performance research studies have been performed by various groups, including Arizona State University and the Center for Job Order Contracting Excellence - CJE, between 1994 and 1998, and most recently in 2015. The 2015 JOC Performance Survey noted that 95% of Real Property Owners were satisfied with Job Order Contracting and 85% clearly indicated its benefits versus other methods.

In addition, multiple independent Audits of Job Order Contracts have been performed by Federal, County, State, and Local Governments.

Lessons Learned

As an Owner...

- JOC Requires Culture Change and Culture Change Takes WORK
- Collaboration Can Be Learned
- Owners MUST demonstrate LEADERSHIP and COMPETENCY

¹ Note: The use of a third party to administer Job Order Contract has also evolved. This practice, while not as efficient as direct Owner management and direct Owner participation does provide a way for real property owners to become exposed to JOC. This method of deployment includes consultants and cooperatives. In any third party administration of a Job Order Contract, it is important that the service provider not have the authority to approve a Job Order / JOC Project while also being paid a percentage of the overall JOC construction volume. This practice has been noted in JOC audits as creating a potential for misuse and/or fraud.

- Have a Clear Chain of Command, however LEAD without Excessive Management and Control
- Be Clear on Your Objective(s)
- Have A Joint Owner / Consultant /Contractor Advisory Team
- Get Stakeholders to Your Partnering Workshops
- Make Partnering a Top Performance Objective for Senior, Middle Management, and Staff
- Make Leadership and Change Management a PRIORITY
- Integrate Partnering Into a Dispute Resolution System
- Making Partnering Mandatory
- Develop a Clear Framework for Your Partnering Program
- Incorporate the Partnering Program into the Contract, Operation/Execution Manuals, Marketing, etc.
- Offer Initial and Ongoing Training in How to Implement the JOC Program and Partnering Skills
- Continuous Work to Align Internal and External Organizational Units
- Develop and Understand that JOC is LONG TERM RELATIONSHIP
- Identify Policies and Practices that Don't Support Collaboration and Eliminate Accordingly
- Use Your Facilitators to Help Implement Your JOC Program
- Capture Lessons Learned and Use Them to Take Your Next JOC Program to the Next Level
- Understand That You Can't Just Hold a Partnering Workshop
- Develop and Monitor Key Performance Metrics, KPIs, What Gets Measured Improves



- Share Rewards and Risk
- Base Reward Upon Performance
- Drive Decision Making Down to the Project Level and Encourage Comments/Suggestions
- Don't Let Project Issues Sit Remain Idle, Use The Dispute Resolution Processes
- Weekly Meetings and Site Visits Are an Important Part of Your Partnering Effort
- Hold a Lessons Learned Workshop at Close Out
- JOC Programs and JOC Projects Succeed When The TEAM Commits to Success

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More About Job Order Contracting / JOC

Job Order Contracting (JOC), a competitively bid, firm-fixed price, Indefinite Delivery Indefinite Quantity (IDIQ) delivery system, is a LEAN construction method and a form of Integrated Project Delivery (IPD).

A real property owner (building or other forms of physical infrastructure) establishes a contractor to multi-year contract and relationship with a contractor partnership. (Note: In recent history JOC has also been provided as a service by a third party administrator. In this relationship, the service party should NOT be involved in approving JOC construction projects if they are receiving a fee based upon total JOC construction volume. This practice has been viewed as a conflict of interest and one which can lead to fraud.)

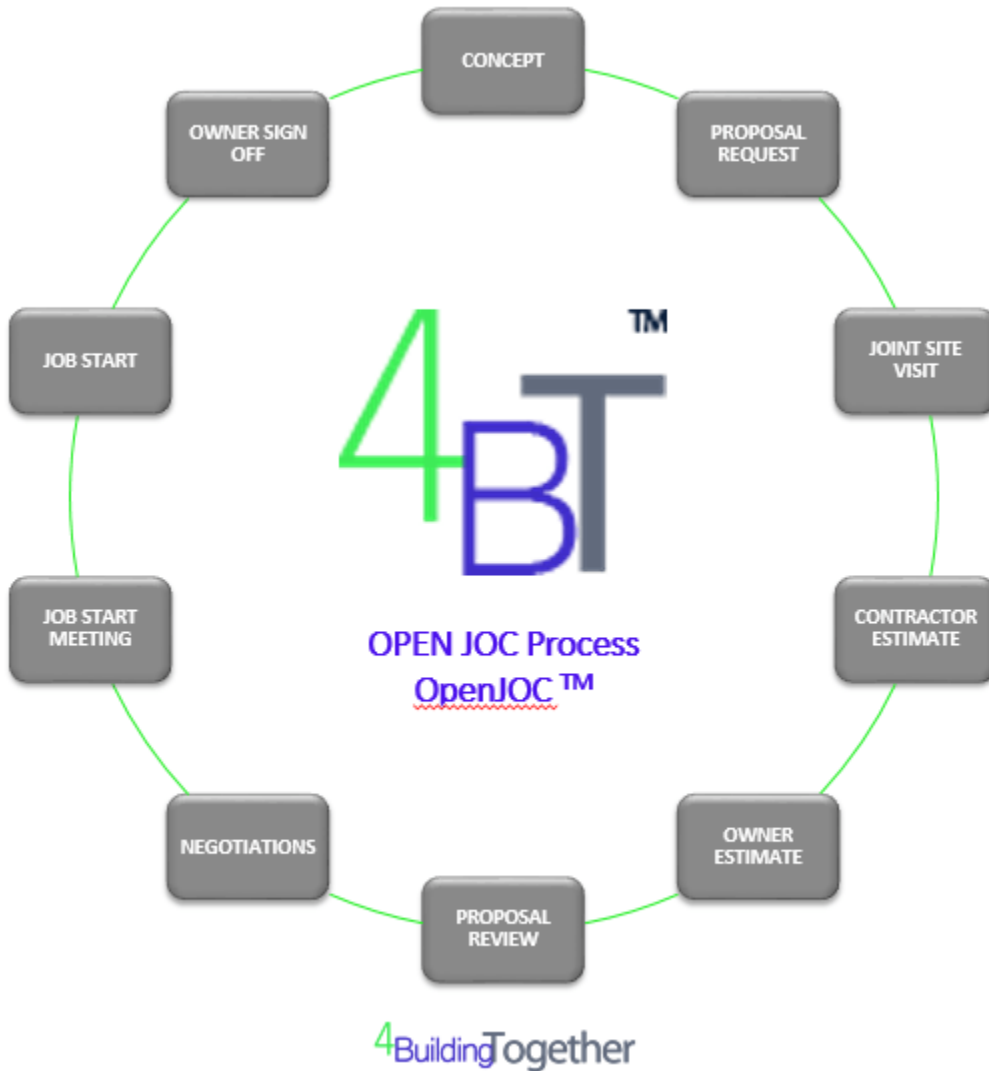
The specific Job Order Contract determines a unit price book (UPB) that has a number of unit price line items complete with descriptions and labor, material and equipment costs. The number of unit price line item varies, however, generally includes approximately 40,000 line items. Most JOCs actually use significantly fewer line items in actual practice. The important factor is that the UPB contain at least 90% of the items common used for the associated JOC.

The cost of a JOC project, also referred to as a Job Order (JO) or Task Order (TO) be determined by creating a detailed line item unit price estimate for the associated Statement of Work (SOW) provided by the Owner. The total of the estimate is then multiplied by a coefficient. The coefficient is a factor that generally ranges from 0.80 to 1.20 is intended to include contractor overhead, profit and any items that reflect the contractor and/or site and/or requirements. A UPB is typically updated annually, and may also be updated quarterly via an economic index/factor.

An example of a work flow involved in a Job Order or Task Order is shown below.

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Job Order Contracts should include a minimum and total estimated maximum volume for each year and for the term. The duration is for one year, plus up to four option years. Contractors are generally awarded a JOC based upon their coefficient and historical track record of performance. In its truest form, JOC procurement should be best upon BEST VALUE. Design work for most JOC projects is minimal, however, if required it is the responsibility of the awarded JOC contractor.

Competency and leadership are REQUIREMENTS on the part of the Owner in order to have a successful JOC. Thus education and ongoing training are key components to JOC program success. Contractors also must participate in initial and ongoing training.



When properly designed and executed, Job Order Contracting delivers a significantly higher percentage of construction project on-time, on-budget, and to the satisfaction of all stakeholders and participants versus "traditional" project delivery methods including design-bid-build, design-build, CM@R, etc. Overall procurement and project delivery times are also significantly expedited using JOC.

References:

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Performance Study, Job Order Contracting – 2015, Arizona State University, PBRSG

White Papers:

JOB ORDER CONTRACTING – Overview & Best Management Practices – [Job Order Contracting White Paper 2016801](#)

COLLABORATION IN CONSTRUCTION – IPD, JOC – [Collaboration in Construction-White Paper](#)

INTEGRATED PROJECT DELIVERY – for Public and Private Owners – [Integrated Project Delivery for Owners](#)