

RSMMeans Business Solutions

Technical White Paper

Methods and Techniques of JOC Implementation

Presented by RSMMeans Business Solutions

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Executive Summary

Job Order Contracting (JOC), also known as SABER, Delivery Order Contracting (DOC), and as Indefinite Delivery, Indefinite Quantity (ID/IQ), is a general contracting method for the delivery of maintenance, upgrade and refurbishment services for buildings. JOC greatly reduces the amount of estimating and bidding activities needed to precede the work, allows for quicker delivery, and helps foster long-term relationships between the client and the general contractor which are based on the quality delivery of services.

JOC is philosophically similar to the design-build methodology that is used for “ground up” (e.g., new buildings) facility construction. Construction professionals who are familiar with design-build should be comfortable with the use of JOC. JOC was developed in the early eighties by the U.S. Department of Defense to expedite the routine repair and maintenance of worldwide military facilities in order to decrease the inherent inefficiencies in traditional design-bid-build practices when applied to a large volume of small projects.

From the experiences of those who have implemented it, the key to the successful application of JOC is to understand the fundamental methodology and its strengths and limitations. JOC is most successful when applied to the general contracting situations for which it was designed — a large number of repair, refurbishment and upgrade projects performed by a single contractor, or limited number of general contractors, under a fixed-price bid. The contractors are constantly evaluated on the quality of the work delivered. However, for either end of the contracting spectrum, ground up (new) or specialty (craft) contracting, JOC is not an optimal solution.

Since JOC revolves around the use of a mutually accepted Unit Price Book (UPB) and estimating techniques, accurate and timely location construction data is critical. To this end, it is fundamental to the success of JOC that both parties understand the components of the JOC line-item estimates, and the workup of JOC estimates for any given scope of work.

In this RSMMeans Technical White Paper, we present a discussion of the findings of our interviews with construction executives who use JOC across a range of settings — from the general contractor’s perspective, as well as that of the client, to private and public construction markets. Our discussions have shown that construction innovators on both sides of the table (client and contractor alike) are expanding the application of JOC — successfully modifying the original methodology to suit their needs, which are always centered around the quality delivery of a large number of simultaneous repair, refurbish and upgrade projects. Benefits in terms of quicker scheduling and completion, better quality work, better value over traditional design-bid-build methods, and higher end-user satisfaction are commonplace.

JOC Utilization Among Various Industries

In the school and municipal sectors, there appears to be growing adoption of the JOC methodology. The critical factor always seems to be the amount of experience and familiarity with JOC procedures. In some cases, state legislation can pose obstacles (having been written in an era of multiple bid, lowest price contracting, and without the awareness of the single-award, multiple-project nature of JOC), but in many states, the legislation is simply silent on the issue. Certain states (most notably, Texas, Arizona and Washington, to name a few) have embraced JOC as a contracting tool for state contracts. In certain cases, facilities engineering and construction managers who are ex-military have been hired and can bring the JOC methodologies into the organization.

Another issue that is driving the adoption of JOC is reduced budgets. The budgets require owners to obtain more value for the construction dollar, and often, owners attempt to utilize in-house maintenance staffs for repair, renovation and refurbishment projects. In-house staffs may not be well-suited for these projects, and other maintenance duties are detracted from. All of these factors together tend to push organizations toward the adoption of JOC.

The JOC approach dramatically cuts engineering, design, and contract procurement time by awarding long-term contracts for a wide variety of renovation, repair and minor construction jobs. JOCs typically are awarded with durations of 3 to 5 years. Annual volumes on specific JOCs can range from \$1 million to \$100 million. Typical average values are in the range of \$50,000 to \$300,000. The method of pricing under the terms of a JOC contract is a Unit Price Book (UPB) which has 40,000 to 60,000 line items organized in the Construction Specifications Institute's CSI Divisions.

JOCs are usually awarded on the basis of a combination of the contractor's technical/management proposal and coefficient, with strong consideration given to the contractor's past performance on similar work. Many JOCs are awarded to contractors who do not submit the lowest coefficient, but rather have a superior technical/management proposal and demonstrate strong past performance. Using contract coefficients and the RSMeans UPB minimizes the potential for differences of opinion between the owner and contractor over pricing of the individual delivery orders. The owner's review of the contractor's proposal usually focuses on three basic issues:

- Is the line item selected appropriate for the scope of the work?
- Does the line item in the proposal reflect the correct quantity of work involved?
- Is the proposal within the owner's budget?

Current JOC Practices

The implementation of JOC has expanded beyond its original methodology, and diverse practices that enhance the benefits of JOC (e.g., substantial reductions in project bid-to-completion time, better value for the construction dollar, better contractor/client relationships, and high levels of end-user satisfaction with construction services for the owner) are noted.

For example: one client-side construction manager in a higher-education setting runs \$4.5 million of projects annually, \$1.5 million of which is under multiple JOC awards representing from 200 to 250 projects annually in the range of \$20,000 to \$25,000 each. This manager had tried using a single contractor but now believes that three is the optimal number. Also, he eliminated the minimum and maximum award aspects of the JOC contracts. He tells the contractors there will be multiple awards, but does not tell the exact figure. The contractors each receive about \$350,000 to \$400,000 annually in JOC awards. The type of contractors he works with are smaller, typically have about \$1 million in assets (or less), and bill out about \$5 to \$6 million annually. His experience has been that the smaller contractors will have about 50% of their revenue from JOC contracts and the larger ones, more typically, will have from 10% to 15% of their annual revenue in JOC awards.

This construction manager provided several caveats that are critical to the approach. Contractors are told the “size of the pie” (total awards to be issued) and what they can expect to see out of it. The awards are balanced so that they do, in fact, attain the volume indicated, and he doesn’t “price shop” among the JOC contractors (when contractors are asked to take a project, they know there is a 99% chance they will get it).

In terms of JOC estimating and the Unit Price Book, this manager felt that an internal staff (five contract administrators, each of whom will oversee 15 to 20 projects simultaneously and 40 to 50 annually) is necessary to administer JOC. He generates his own estimate since he has to do the estimating anyway to check the contractor’s JOC estimate. Internal staff develop the JOC estimates together with the contractor’s estimators — they do the site visit and review each line item jointly. Using this contracting practice, they reach agreement 90% of the time.

Another aspect of JOC used by this client-construction manager is the gauging of the value of the construction service obtained by the coefficient from the contractors. Awards were coming under the Unit Price Book figures from 3% to 18%, and all contractors reported that they were earning money on JOC awards.

Size of Contractor — Orientation Toward JOC and Owner View

Several construction services clients observed that JOC seems to be favored by medium-sized contractors (ranging from \$20 million to \$50 million in annual billings) who would typically have about 20% to 25% of their annual revenue in JOC awards. The contractors use this relatively predictable work to smooth out cash flow during the year.

The contractor has to be of sufficient size and have a field supervisor on site, sometimes as a “working” supervisor. Typically, this would be a contracting firm with at least four or five field supervisors on staff. Conversely, this tends to limit the participation of the larger contractors, whom, the client respondents believe, tend not to assign the proper level of field supervision to the JOC contracts since they expect their field supervisors to oversee a larger size and scope of work for each project.

All respondents stressed that skilled, experienced field supervisors are critical to the success of JOC and the JOC contractor. A municipal government construction manager stated that as long as the field supervisors have JOC experience, the contractor will perform appropriately in a JOC setting. In the prior year, this manager had awarded \$3 million in 112 JOC awards and utilized two JOC contractors. A respondent remarked that some contractors compensate field supervisors from a percentage of the gross JOC awards, which serves as an incentive to the field managers to perform in a manner that will ensure future JOC awards.

Location and Design Issues

Some of the respondents stated that JOC is best applied to clustered types of projects or buildings — such as those in a campus-type setting. This is due to the fact that the overhead activities of the contractor can be centralized (hence leading to more efficiency.) On the other hand, a municipal county construction manager was successfully utilizing JOC in a county that was 80 miles long. An interstate highway, allowing for easy access to the entire county, bisected it. This construction manager utilized two JOC contractors on opposite sides of the county.

Contractor Evaluations — Pre-bid and Ongoing

A factor in the successful implementation of JOC is the evaluation of contractors who choose to be qualified by the client for JOC awards, both prior to selection and ongoing.

Several construction clients emphasized the use of a multi-dimensional rating scheme, whereby several factors, such as resumes of the contractor’s field supervisory staff, experience with JOC (both the firm and the staff), prior contract performance, and references, as well as standard financial items, are assigned different weights which accompany the contractor’s “coefficient” or “bid.” A number of construction clients emphasized that the lowest bid is seldom the determining factor, since a long-term relationship is desired with demonstrated performance, staffing and experience with JOC heavily influencing the selection.

Once the JOC contractor or contractors were selected, some clients gave them formal “report cards” on each and every project, and the report cards were summed up for an annual report card to determine if the JOC contract with that particular contractor would be extended (the option years). This gave the contractor regular feedback on performance and ample opportunity to address any performance issues. Clients emphasized that contract extensions were by no means guaranteed, but that the longer a working relationship was in place, the greater the satisfaction among the parties (client and contractor) would be. Clients who had many demands in the repair and short-lead time demand areas were particularly sensitive to end-user satisfaction issues and tended to weigh those heavily in evaluating contractor performance.

Advantages of JOC Contracting

Successful implementation of JOC is dependent on knowledge, by both the contractor and the client, of the strengths and limitations of JOC and a keen understanding of the common language of estimating as expressed in the Unit Price Book — the key document that provides the mutually accepted basis for the JOC awards. The benefits of a well-administrated JOC program (involving both experienced clients and contractors) are well documented: increased construction dollar value, steady and profitable work for qualified contractors, and satisfied clients and end users. The procurement and contract process for each delivery order is greatly simplified because the owner does not need a complete engineering and design package and does not have to spend the time and money to advertise for public bids for each project. Also, the work is generally started more quickly. Few construction methodologies can match this menu of benefits for all parties involved.

The owner has the benefit of using a contractor who is well qualified. Usually the contractor is required to submit a technical/management proposal that is evaluated to confirm capability and past performance. References on similar contracts are also carefully checked. These two factors, combined with the price proposal, are usually the basis for award of a JOC. In this way, long-term partnering relationships are fostered. Emergency and urgent projects can also be responsively accomplished. For facilities that have strict security requirements, the contractor will have a staff with security clearances that can perform the work without delay. JOC contracting is an effective means for government and institutional owners to accomplish construction work on existing facilities. When properly managed by both the owner and contractor, JOC provides responsive work at a fair price.

JOC Services from RSMeans Business Solutions

- On-site consultation for JOC “best practices” and contracting methods
- RSMeans JOC Unit Price Book for associated JOC Costs and demolition lines
- JOCWorks software for producing detailed cost estimates and project management tasks
- Training on cost estimating and development of the JOC coefficient

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