LONG BEACH CITY AUDITOR
LAURA DOUD

MEMORANDUM

Date: October 31, 2016

To: Craig Beck, Director of Public Works

cc: Pat West, City Manager

From: Laura Doud, City Auditor ld

Subject: Job Order Contract Audit

In May 2016 our Office completed an audit of the internal controls surrounding the City's Job Order Contracting (JOC) program and reported on the systemic lack of controls surrounding the program.

As a supplement to that audit, we retained the firm of Vicenti, Lloyd & Stutzman (VLS) to provide a construction consultant to further review certain JOC projects. VLS confirmed the following results from our audit:

- JOC contractors inflated proposals above contractual prices by including incorrect items or overstated quantities.
    - VLS reviewed actual project costs against an estimated market value if the projects had been completed outside the JOC program. To develop the estimated market prices, VLS' construction expert used construction plans and spoke with project managers.
    - Four projects were reviewed, and three were within 2% of the estimated market value. The fourth project review showed that the City paid 30% higher than market value. The City disagreed with VLS' estimate on this project and obtained estimates from a contracted consulting firm and a City engineer. Both of those estimates were closer to the actual cost paid by the City.
- Extensive use of non-catalog items was not necessary and increased project costs above contractual price. Non-catalog items could have been used from the pre-priced catalog with the contractor's bid percentage factor applied.
- Contractors bid unrealistically low percentage factors. VLS' construction consultant confirmed that the pre-priced catalog accurately reflects wages and prices in the Long Beach area. If the contractors had bid a factor of .9 to 1 instead of .5 to .71, the pre-priced catalog would have allowed contractors to make a reasonable profit, thus eliminating the need to inflate proposals to achieve market rates.

VLS made six recommendations, five of which were already included in our May 2016 audit report.

VLS's additional recommendation is that City Management seek the opinion of legal counsel relating to possible false claims submitted by JOC contractors for items in excess of project need.

The detailed results of the work performed by VLS is in the attached report.

Since the release of the May 2016 audit report, the City has recognized the severity of the issues and has suspended the JOC program. In addition, the City has begun to implement major changes to the program, including many recommendations made by our Office listed below.

- In May 2016 City Council adopted an ordinance to establish specific parameters for the City's use of JOC contracts as well as criteria to establish policies and procedures for the program.

- Establishment of a focused project management team and new staff responsible for ensuring the JOC program performs optimally.

- Development of an Administrative Regulation to establish a JOC policy with the program's intent, project criteria, and process for project approval.

- Development of a JOC Procedures Manual with guidelines for usage as well as steps and documentation required for each project.

- Enhanced internal training for project managers.

- Enlisting a consultant to assist with JOC program support services to advise staff on JOC contractor pre-qualifications, development of project scopes of work, review of proposals, cost estimating support, and training and professional development of project managers.

We are pleased that many of these recommendations have assisted with changes to significantly improve the program and better ensure it is operating as intended.

We thank the Department of Public Works for their assistance, patience and cooperation during the audit.

VLS FORENSIC SERVICES
A PROFESSIONAL SERVICE OF VICENTI, LLOYD & STUTZMAN, LLP

Working together to build a culture of integrity and productivity within your workplace

THE CITY OF LONG BEACH
OFFICE OF THE CITY AUDITOR

RESPECT
FOR THE INDIVIDUAL

HIGH ETHICAL
STANDARDS

INNOVATION
CREATIVITY
CHANGE

MUTUAL TRUST

UNEQUIVOCAL
EXCELLENCE

CONSULTING SERVICES
JOB ORDER CONTRACTING PROGRAM

JULY 19, 2016

VICENTI ♦ LLOYD ♦ STUTZMAN LLP
CPAs AND BUSINESS ADVISORS

July 19, 2016

Laura Doud
City Auditor
The City of Long Beach
333 West Ocean Blvd., 8th Floor
Long Beach, CA 90802

Re: Job Order Contracting Program – Consulting Services – Phase 1 and Phase 2

Dear Ms. Doud:

Attached is our report regarding the consulting services provided related to the Job Order Contracting program at the City of Long Beach. Our report provides a detailed explanation of the procedures performed and the results of those procedures. In addition, a number of recommendations are included for the City to consider implementing into the Job Ordering Contracting program.

We appreciate the opportunity to have assisted you on this matter.

Sincerely,

Ernest C. Cooper, CPA/CFF, CFE
Partner

2210 E. Route 66, Ste. 100, Glendora, CA 91740 ♦ Tel 626.857.7300 ♦ Fax 626.857.7302
555 W. 5th Street, Flr. 35, Los Angeles, CA 90013 ♦ Tel 213.550.5422
Email INFO@VLSLLP.COM ♦ Web WWW.VLSLLP.COM

Table of Contents

I. Executive Summary

A. Background and Objective

Vicenti, Lloyd & Stutzman LLP (VLS) was retained by the Office of the City Auditor for the City of Long Beach (City Auditor) to provide certain forensic and investigative consulting services related to the Job Order Contracting (JOC) program. The work performed by VLS was pursuant to the Request for Proposal (RFP) for Fraud Investigation Services dated 8/26/15 issued by the City Auditor, the proposal submitted by VLS on 9/18/15, and the Phase 1 and Phase 2 contracts between VLS and the City Auditor.

The City Auditor had conducted an audit related to the control environment surrounding the JOC program and identified certain areas of concern. The City Auditor met with VLS on 10/7/15 to discuss the specific concerns of the City Auditor's preliminary audit results and possible investigative steps to be performed by VLS.

VLS was engaged to perform a review of certain documents from the audit conducted by the City Auditor, conduct interviews of certain individuals currently or formerly involved with the JOC program, and communicate the results of Phase 1 to the City Auditor. Based on the results of Phase 1, VLS was then retained under a Phase 2 contract to perform a detailed review of four JOC program projects. The detailed scope of work conducted by VLS for Phases 1 and 2 is included in *Section II.C. Scope of Engagement* (page 12).

B. Background of JOC Program

Contractors pursuing a JOC contract with the City are required to bid an adjustment factor, which is then applied to the cost of items in a pre-priced catalog published by The Gordian Group. This catalog contains detailed unit prices of common construction tasks, based on local prevailing wage rates, material and equipment costs. The Gordian Group publishes the eGordian Construction Task Catalog® (CTC), which is used by the City in the administration of the JOC program.

In order to notify contractors of the City's need for construction services, the City issues a request for bids from contractors. After receiving responses from contractors, five are selected with the most recent contractors receiving a contract for approximately $3.5 million over a 3-year period. The bid documents require that JOC contractors bid an adjustment factor based on the CTC, which is supposed to be used when pricing projects performed under the JOC program. For example, an adjustment factor of 1.0 would indicate that the City would pay the exact prices listed in the CTC.

C. Phase 1

Scope of Work

The City Auditor expressed concern regarding the current structure of the JOC program for the City of Long Beach (City) and the costs paid to the contractors for projects performed under the JOC program. As part of the scope of work, VLS was engaged to provide certain forensic and investigative consulting services to the City Auditor to help address the concerns raised. Based on the understanding of these concerns, VLS and the City Auditors agreed to complete this project in phases in order to focus on the areas of greater risk and minimize the costs of these services. The scope of work for Phase 1 included the following procedures:

1) Spend additional time with the City Auditor to obtain a more detailed understanding of the procedures performed and results of the audit. This was to include a review of certain key documents and work papers from the audit, including, but not limited to, interview memoranda, matrix of key players, JOC program flowchart, and areas of concern identified by the City Auditor.

2) Interview certain individuals already identified as possible key sources of information. The purpose of these interviews was to assess the areas of highest risk and identify specific projects and/or contractors that may warrant further investigation.

3) Summarize the results of findings from the steps above and identify the areas of highest risk, including whether there were any specific contractors or projects that warranted further investigation. VLS was to hold a briefing meeting with the City Auditor to review findings and discuss possible steps for a Phase 2.

Results of Work Performed

Based on the results of work performed by VLS in Phase 1, the following areas were identified as high-risk or of concern:

1) *JOC contractors prepared and submitted inaccurate and inflated proposals:* Several individuals interviewed indicated that the proposals submitted by JOC contractors included inflated quantities and/or incorrect line items in order increase the proposal estimate. This "padding" of proposals was done to offset the low adjustment factors bid by the JOC contractors. This was an understood practice within the JOC program.

   According to the interviewees, if the JOC contractors were to use the adjustment factors that were bid to the City, and included only the needed line items from

the CTC to complete the project, the contractors would not be able to cover their costs of performing the work and make a reasonable profit.

2) *Project managers did not have time to adequately review proposals:* Due to the workload of project managers, there often was not adequate time to thoroughly review project proposals to ensure accuracy. Additionally, it was difficult for project managers to enforce the use of the CTC, which allowed increased use of Non-Pre Priced (NPP) items.

3) *Project managers used their experience to determine whether proposal amounts were reasonable:* Because the "padding" of proposals was an accepted practice, project managers used their judgment, experience, and/or the City department budget to determine what was a reasonable price quoted by the JOC contractors in their proposal. This essentially resulted in the City paying negotiated prices to the JOC contractors for work performed.

4) *The scope of work was prepared by copying the JOC proposal:* In some instances, the project managers used the proposals submitted by the JOC contractors to prepare the scope of work rather than defining the scope of work prior to the contractor preparing the proposal. This allowed the two documents to match; however, the scope of work would not accurately reflect the work performed.

5) *Some projects were completed as "pass-throughs":* Certain projects were performed as pass-throughs, which was not the intention of the program. This was generally the result of a City department having a preferred vendor, product, or material. The JOC contractor was instructed to use the preferred vendor, product, or material.

These practices may circumvent the provisions of the JOC program and may leave the City vulnerable to the risk of overpayment for work performed by the JOC program contractors. Additionally, the City may not be compliant with the requirements of California Public Contract Code. Based on the results of Phase 1, the City Auditor requested that VLS perform additional procedures as part of Phase 2.

D. Phase 2

Scope of Work

Based on the results of Phase 1, the City Auditor requested that VLS perform additional procedures as part of Phase 2. The scope of work for Phase 2 included the following:

1) Conduct public record and Internet searches on certain individuals currently or formerly involved with the JOC program;

2) Review and test a sample of proposals submitted by JOC contractors and perform the following:

    a) Determine whether the scope of work requested by the City, proposal from JOC contractor, and actual work performed are consistent and identify any variances,
    b) Cost out the proposals using The Gordian Group Construction Task Catalog (CTC) and JOC contractor adjustment factors, and
    c) Cost out the proposals as though the work were bid through a general contractor;

3) Quantify the effect of using certain Non-Pre Price (NPP) items in proposals; and

4) Communicate results to the City Auditor and work with the City Auditor to determine the need for additional investigative steps as part of Phase 2.

The VLS construction consultant formulated his assessment based on his review of each project proposal, visits to the construction project site, review of photographs of the construction site taken prior to commencement of the project, and interviews of appropriate project managers.

Results of Work Performed

The following sections summarize the results from the work performed for Phase 2.

1) No Evidence of a Conflict of Interest

The public record and Internet searches were used to identify businesses affiliated with or owned by the City project managers. The results of these searches were shared with the City Auditor so that a search could be done of City records to determine if any payments were made to the businesses identified. VLS used the results of these searches during the detailed review of JOC projects to determine if any work was performed by a business owned by or affiliated with a City project manager, which would indicate a possible conflict of interest. VLS did not review all the records related to subcontractors and reviewed only the documents available at the City. VLS did not see evidence of work being performed on the JOC projects by businesses affiliated with or owned by City project managers; therefore, no further work was performed in this area.

2) JOC Contractor Proposals Were Inflated and/or Inaccurate

Based on the review performed by the VLS construction consultant, each of the four construction project proposals prepared by JOC contractors included items that were unnecessary for the project, incorrectly quantified, and/or did not accurately reflect the

work that was performed.[1] This is consistent with the concerns identified from the interviews conducted in Phase 1.

Table 1 lists the four projects reviewed by the VLS construction consultant and provides a summary of the comparison between the total cost to the City for each project and the total estimated cost had the City enforced the use of the CTC and adjustment factors per the effective JOC contracts.[2] The costs and estimates included in this table incorporate costs related to NPP items.[3] Table 1 includes the following information for each project:

- **Total Cost to City:** Total cost paid by the City based on the proposal submitted by the JOC contractor
- **CTC and No Factor Applied:** Total estimated cost using the CTC with no adjustment factor applied (100% of price listed in CTC)
- **CTC and Applicable Adjustment Factor:** Total estimated cost using the CTC and adjustment factor as bid by the applicable JOC contractor
- **Difference:** Difference between the cost paid by the City and the estimated cost as if the City had enforced the use of the CTC and adjustment factors bid by the applicable JOC contractors (amount paid by the City in excess of estimated contractual obligation)
- **Percentage Difference:** Percentage difference between the cost paid by the City and the estimated cost had the City enforced the use of the CTC and adjustment factors bid by the applicable JOC contractors

Table 1: Summary Results of JOC Proposal Review – Contractual Obligation

Project Description	Project Number	Total Cost to City	CTC and No Factor Applied	CTC and Applicable Adjustment Factor	Difference (Total Cost to City – CTC and Applicable Adjustment Factor)	Percentage Difference
Long Beach Marine Stadium Restroom Renovation	17J0021	$ 105,759	$ 81,936	$ 50,170	$ 55,589	110.8%
Cressa Park Fencing	18J0005	28,178	30,047	17,124	11,054	64.6%
Long Beach Library Carpet installation	15J0050	96,180	103,519	57,971	38,209	65.9%
Long Beach El Dorado Park Restroom Rehabilitation	15J0046	51,962	50,821	28,460	23,502	82.6%

[1] The body of this report contains the detailed analysis performed for each project.

[2] The estimated costs are based on the VLS construction consultant's assessment of the specific construction tasks, materials, and equipment that would have been required to complete each project based on the information available and conditions observed.

[3] In addition, the costs and estimates specific to only NPP items are addressed independently in Table 3.

For all four projects analyzed, the cost paid by the City is greater than what the project cost would have been if the City had enforced the use of the CTC and the JOC contractor adjustment factors per the effective JOC contracts.

Table 2 lists the four projects reviewed by the VLS construction consultant and provides a summary of the comparison between the total cost to the City for each project and the total estimated cost had the City gone out for a public bid.[4] The costs and estimates included in this table incorporate costs related to NPP items.[5] Table 2 includes the following information for each project:

- **Total Cost to City:** Total cost paid by the City based on the proposal submitted by the JOC contractor
- **Estimated General Contractor Bid Price:** Total estimated cost as if the project was bid by a general contractor (estimated market cost calculated by VLS construction consultant)
- **Difference:** Difference between the cost paid by the City and the estimated cost if the project was bid by a general contractor (amount over estimated market cost)
- **Percentage Difference:** Percentage difference between the cost paid by the City and the estimated cost if the project was bid by a general contractor

Table 2: Summary Results of JOC Proposal Review – General Contractor Estimate

Project Description	Project Number	Total Cost to City	Estimated General Contractor Bid Price	Difference (Total Cost to City – General Contractor Bid Price)	Percentage Difference
Long Beach Marine Stadium Restroom Renovation	17J0021	$ 105,759	$ 74,060	$ 31,699	30.0%
Cressa Park Fencing	18J0005	28,178	27,935	243	0.9%
Long Beach Library Carpet installation	15J0050	96,180	95,577	603	0.6%
Long Beach El Dorado Park Restroom Rehabilitation	15J0046	51,962	50,860	1,102	2.1%

For all four projects analyzed, the cost paid by the City is greater than what the VLS construction consultant estimated would have been the market price if the work had been bid through a general contractor.

[4] The estimated costs are based on the VLS construction consultant's assessment of the specific construction tasks, materials, and equipment that would have been required to complete each project based on the information available and conditions observed.

[5] In addition, the costs and estimates specific to only NPP items are addressed independently in Table 4.

It is the opinion of the VLS construction consultant that a difference of less than ten percent is a reasonable difference in costs.[6] Three of the projects identified above have a cost difference of less than ten percent based on the estimated general contractor bid price.[7] However, the price paid by the City for the Long Beach Marine Stadium Restroom Renovation project appears to have been excessive for the scope of work performed. This project demonstrated a 30% difference, which is significantly more than what would have been within a reasonable cost margin. Had the contractors bid a reasonable adjustment factor of 0.90 to 1.00, the accurate use of the CTC would have allowed the contractors to recuperate their cost, cover their overhead, and make a reasonable profit.

3) Use of Non-Pre Priced (NPP) Items by JOC Contractors Not Necessary

In the opinion of the VLS construction consultant, nearly all of the items included by the JOC contractors in the proposals could have been listed using the CTC pricing and the applicable adjustment factors. Although JOC contractors are allowed to use NPP items, they are required to obtain three quotes for the City's review to ensure that the items listed were competitively priced. None of the NPP items reviewed by the VLS construction consultant had the required bids. Of the four construction projects selected for review, only the Long Beach Library carpet installation did not contain NPP items.

In all cases, the amount paid by the City was greater than what the cost would have been had the items been priced using the CTC and the applicable adjustment factors applied. Table 3 includes the costs and estimates specific only to NPP items, while the costs and estimates related to the entire projects are displayed in Table 1.

Table 3: Summary of Results of Quantifying NPP Effect – Contractual Obligation

Project Description	Project Number	JOC NPP Price	Estimated Total Cost Using CTC and No Factor Applied	Estimated Total Cost Using CTC and Applicable Adjustment Factor	Difference between Total Cost to City and Estimated Total Cost Using CTC and Applicable Adjustment Factor
Long Beach Marine Stadium Restroom Renovation	17J0021	$ 67,217	$ 46,214	$ 35,469	$ 31,748
Cressa Park fencing	18J0005	1,078	204	137	941

[6] A ten percent difference would be reasonable as not all contractors would estimate an identical price for a specific project. However, most estimates would be within a ten percent margin.

[7] The VLS construction consultant's opinion is that the total price paid by the City for these three construction projects is within the range of reasonable market rates even though some line items in the JOC proposals were unnecessary, incorrectly quantified, and not accurate to the work that was performed for the respective project. However, the City may have paid more than it was contractually obligated to as the CTC should have been used and the applicable adjustment factor applied.

Project Description	Project Number	JOC NPP Price	Estimated Total Cost Using CTC and No Factor Applied	Estimated Total Cost Using CTC and Applicable Adjustment Factor	Difference between Total Cost to City and Estimated Total Cost Using CTC and Applicable Adjustment Factor
Long Beach Library carpet installation	15J0050	No NPP items			
Long Beach El Dorado Park Restroom Rehabilitation	15J0046	2,200	2,041	1,143	1,057

Table 4 is a summary of the difference between the cost of the NPP items included in the JOC contractor proposals compared to the same items being bid by a general contractor. In all cases, the amount paid by the City was greater than what the cost would have been if a general contractor had bid the project. Table 4 includes the costs and estimates specific only to NPP items, while the costs and estimates related to the entire projects are displayed in Table 2.

Table 4: Summary of Results of Quantifying NPP Effect – General Contractor Estimate

Project Description	Project Number	JOC NPP Price	Estimated Total Cost as if Bid by a General Contractor	Difference between Total Cost to City and Estimated Total Cost As If Bid by a General contractor
Long Beach Marine Stadium Restroom Renovation	17J0021	$ 67,217	$ 49,623	$ 17,594
Cressa Park fencing	18J0005	1,078	0	1,078
Long Beach Library carpet installation	15J0050	No NPP items		
Long Beach El Dorado Park Restroom Rehabilitation	15J0046	2,200	2,100	100

E. Recommendations

According to information provided by the City Auditor, the objective of a JOC program is to have small, simple, and commonly encountered construction projects performed easily and quickly. The JOC program is particularly well suited for (1) repetitive jobs and (2) situations in which owners know that many small tasks will arise but the timing, type of work, and quantity of work are unknown at the time the contract is signed with the vendors. There are several advantages of using a JOC program; however, in order for this program to work it needs to be appropriately established and executed. Based on the interviews conducted and testing of the four projects selected, it became evident that the JOC program for the City is not functioning appropriately to meet the objectives of the program.

The VLS construction consultant believes that the CTC appropriately reflects the wages and prices of the Long Beach area and that the low adjustment factors bid by the construction companies allow them to attain the contract with the City. However, once

the contract is secured, if they were to use the adjustment factors bid, and only include items necessary to complete the work, the amount of the contract proposal would not cover the cost to the contractor of performing the work. For this reason, it appears that the JOC contractors include additional items in excess of the needed scope or use NPP items in order to cover the cost and make a reasonable profit. This is not the way a JOC program is intended to function. By securing bids at a fraction of what it would actually cost to complete a construction project and then including additional items in excess of the needed scope, or by using NPP items, the purpose of the JOC program is defeated and there is a possibility that the public bidding code is being circumvented under the pretense of a JOC program. Additionally, the City is at risk of overpaying for the work performed as there is no mechanism in place to ensure that it is receiving a fair price for the work performed. The Gordian Group also stated that the JOC program is not intended to be used for "pass through" projects. An example of the use of a "pass through" project is the Long Beach Library Carpet project where the cost to perform the work was negotiated with a company that then subcontracted under a JOC contractor to perform the work.

(1) Consider Selecting JOC Contractors Using a Qualification Based Approach and Reasonable Adjustment Factors

Moving forward, select JOC contractors using a qualification based selection process as well as bidding for the lowest, yet reasonable, adjustment factor. Evaluate all contractors using a set of pre-established criteria determined by the City (such as past performance, experience with JOC contracts, qualifications of key personnel, financial status, safety records and other criteria the City may deem necessary). It is important that a reasonable adjustment factor be used keeping in mind that the CTC accurately reflects prices and wages for the area.

(2) Provide Education and Training to Project Managers Responsible for the JOC Program

Provide JOC project managers with education and training related to the workings of a properly functioning JOC program. Identify educational institutions that offer certificate programs and provide a comprehensive overview of the JOC process. In these programs, students may discover how to set up, operate and manage a successful JOC program. They also may explore the responsibilities of those involved in the process, pricing considerations, and the selection process.

(3) Implement a Process that Ensures a Thorough Evaluation of Proposals

Implement a process that ensures each proposal submitted by a JOC contractor is thoroughly reviewed for accuracy based on the scope of work. Additionally, develop a process for ensuring that inaccurate proposals and proposals that do not use the CTC are not accepted. To ensure that the City is paying a fair price for work

performed, it must enforce the use of the CTC and the adjustment factors bid by the JOC contractors and evaluate each proposal received by the JOC contractors to assess if all the line items listed are necessary for the completion of the project. In order to do this, the project managers need to be knowledgeable of construction conditions and proficient in the use of the CTC to identify the appropriate items and prices that should compose the proposal. If necessary, this evaluation can be performed by an outside party with more knowledge and expertise; however, this service would come at an additional cost to the City.

(4) Implement a Review Process for Items Listed as NPP Items in JOC Contractors' Proposals

Establish a process for ensuring that the JOC contractor obtains three bids prior to submitting a proposal that includes NPP items. Attach the documentation for the three bids obtained by the JOC contractor to the JOC proposal when a proposal includes NPP items. This will help ensure that the City is receiving a competitive price for these services.

(5) Implement Management Oversight of the JOC Program

Establish management oversight for the work performed by JOC project managers. Conduct an internal review of the JOC proposals evaluated and approved by JOC project managers to minimize the risk that the approved JOC proposals may include unnecessary items, repetitive items, incorrect items, and quantities exceeding what is required.

(6) Seek Legal Counsel Opinion

Seek the opinion of legal counsel in relation to the areas of concern identified within the JOC program. It is possible that false claims may have been submitted by JOC contractors and allowed by the City as there is evidence that proposals submitted may have included items in excess of project need.

II. Background and Scope of Engagement

A. Engagement Background and Objectives

Vicenti, Lloyd & Stutzman LLP (VLS) was retained by the Office of the City Auditor for the City of Long Beach (City Auditor) to provide certain forensic and investigative consulting services related to the Job Order Contracting (JOC) program. The work performed by VLS was pursuant to the Request for Proposal (RFP) for Fraud Investigation Services dated 8/26/15 issued by the City Auditor, the proposal submitted by VLS on 9/18/15, and the Phase 1 and Phase 2 contracts between VLS and the City Auditor.

The City Auditor had conducted an audit related to the control environment surrounding the JOC program and identified certain areas of concern. Based upon the preliminary results of that audit, the City Auditor was in search of an investigative firm, with experience in construction and the public sector, to perform certain forensic and investigative services. VLS met with the City Auditor on 10/7/15 to discuss the specific concerns of the City Auditor's preliminary audit results and possible investigative steps to be performed by VLS.

VLS was engaged to perform a review of certain documents from the audit conducted by the City Auditor, conduct interviews of certain individuals currently or formerly involved with the JOC program, and communicate the results of Phase 1 to the City Auditor. Based on the results of Phase 1, the City Auditor requested that VLS perform additional procedures as part of Phase 2. As part of phase 2, VLS was engaged to conduct public record searches, review and test a sample of proposals submitted by JOC contractors, quantify the effect of using certain Non-Pre Priced (NPP) items in proposals, and communicate results to the City Auditor. The detailed scope of work for each phase is included in *Section II.C. Scope of Engagement* (page 12).

B. Professional Standards

VLS performed this engagement in accordance with the American Institute of Certified Public Accountants (AICPA) *Statement on Standards for Consulting Services No. 1 (SSCS).* In consulting engagements, the nature and scope of work is determined solely by the agreement between the practitioner (VLS) and the client (City Auditor). The analysis and report does not constitute an audit, compilation, or review, in accordance with standards of the AICPA, the objective of which would be the expression of an opinion on any specified elements, accounts, or items. Accordingly, VLS does not express such an opinion.

C. Scope of Engagement

The City Auditor expressed concern regarding the current structure of the JOC program for the City of Long Beach (City) and the costs paid to the contractors for projects performed under the JOC program. As part of the scope of work, VLS was engaged to provide certain forensic and investigative consulting services to the City Auditor to help address the concerns raised. Based on the understanding of these concerns, VLS proposed completing this project in phases in order to focus on the areas of greater risk and minimize the costs of these services. The scope of work for Phase 1 included the following procedures:

1) Spend additional time with the City Auditor to obtain a more detailed understanding of the procedures performed and results of the audit. This was to include a review of certain key documents and work papers from the audit, including, but not limited to, interview memoranda, the matrix of key players, the JOC program flowchart, and areas of concern identified by the City Auditor.

2) Interview certain individuals already identified as possible key sources of information. The purpose of these interviews was to assess the areas of highest risk and identify specific projects and/or contractors that may warrant further investigation.

3) Summarize the results of findings from the steps above and identify the areas of highest risk, including whether there were any specific contractors or projects that warranted further investigation. VLS was to hold a briefing meeting with the City Auditor to review findings and discuss possible steps for a Phase 2.

Based on the results of Phase 1, the City Auditor requested that VLS perform additional procedures as part of Phase 2. The scope of work for Phase 2 included the following:

1) Conduct public record and Internet searches on certain individuals currently or formerly involved with the JOC program;

2) Review and test a sample of proposals submitted by JOC contractors and perform the following:

    a) Determine whether the scope of work requested by the City, the proposal submitted by the JOC contractor, and the actual work performed are consistent and identify any variances,

b) Cost out the proposals using The Gordian Group Construction Task Catalog (CTC) and JOC contractor adjustment factors, and
c) Cost out the proposals as though the work were bid through a general contractor;

3) Quantify the effect of using certain Non-Pre Priced (NPP) items in proposals; and

4) Communicate results to the City Auditor and work with the City Auditor to determine the need for additional investigative steps as part of Phase 2.

D. Professional Disclaimer

VLS used the services of a construction consultant to assist during both phases of this project. As part of the testing performed in Phase 2, the construction consultant prepared cost estimates of the selected projects for comparison to the actual proposals received from the JOC contractors.[8] The cost estimates prepared and included in this report are based on the VLS construction consultant's observation of the existing conditions and construction work performed at the location of each project. It is possible that information that was available or conditions that existed at the time the JOC proposal was prepared were no longer available or visible at the time of the site visits. The construction consultant does not know all of the conditions and bid environment that existed at the time the JOC proposal was prepared. The cost estimates were prepared as accurately as possible with the information available to the construction consultant. The prices used for the general contractor estimate were based on the VLS construction consultant's extensive knowledge of the construction industry, job cost books, and pricing quotes from current contractors in their specified fields. The pricing reflects current 2016 pricing. All four projects analyzed may have elements that are unknown to VLS and the construction consultant, especially the Marine Stadium project, where the building that existed prior to the project is no longer there.

E. List of Acronyms and Abbreviations Used

Acronym/ Abbreviation	Description
EA	Each
DBH	Diameter at breast height – DBH is used as a point of measurement for the diameter of trees; Tree trunks are measured at the height of an adult's breast
ACR	Acre

[8] The VLS construction consultant prepared two cost estimates for each project tested. One cost estimate used the prices listed in the CTC, and the second cost estimate was prepared as if a general contractor were bidding on the project.

Acronym/ Abbreviation	Description
CTC	eGordian Construction Task Catalog is a catalog of construction tasks with assigned labor units and material costs which is used by the City JOC contractors to identify the cost assigned to a particular construction activity; All JOC contractors are required to use this catalog and use the per unit pricing as specified
CY	Cubic Yard
JOC	Job Ordering Contracting
LF	Linear Feet
LS	Lump Sum
NPP	Non-Pre Priced – NPP items are used by JOC contractors in a proposal when the specified work is not located in the CTC[9]
Pass-Through	When a City department has a preferred vendor, product, or material and requests that the project be completed using these preferences. The JOC contractor acts as an intermediary, with the preferred vendor working under the JOC contractor as a subcontractor. The JOC contractor then charges a 10% fee on top of the costs charged by the subcontractor.
SF	Square Feet
SY	Square Yards
VLF	Vertical Linear Feet

[9] The actual term used by JOC contractors and project managers is NPP. However, some may refer to NPP items as non-catalog items. VLS used the term NPP for this report.

III. Interviews Conducted

During Phase 1, VLS interviewed seven individuals in order to assess the areas of highest risk and identify specific projects and/or JOC contractors that may warrant further review. The interviews conducted included the individuals listed below:

- JOC contractor
- Former Capital Projects Coordinator III
- Former Chief Construction Inspector
- Consultant who works for the City as a project manager
- Former Capital Projects Coordinator IV
- Project manager in charge of the Long Beach area for The Gordian Group[10]
- Western Region Director for The Gordian Group[10]

During Phase 2, the VLS construction consultant met with various project managers for the projects reviewed.

[10] Both representatives from The Gordian Group were interviewed during one meeting.

IV. Summary of Results of Phase 1

Understanding the Background of the JOC Program

Based on interviews conducted and a review of preliminary documents, VLS gathered sufficient information to understand the purpose of the Job Order Contracting (JOC) program within the City. The JOC program is designed to create an efficient and effective method for small contracting projects to be assigned to contractors after being selected through a public bidding process.[11] Contractors pursuing a JOC contract with the City are required to bid an adjustment factor, which is then applied to the cost of items in a pre-priced catalog published by The Gordian Group. This catalog contains detailed unit prices of common construction tasks, based on local prevailing wage rates, material and equipment costs. The Gordian Group publishes the eGordian Construction Task Catalog® (CTC), which is used by the City in the administration of the JOC program.

In order to notify contractors of the City's need for construction services, the City issues a request for bids from contractors. After receiving responses from contractors, five contractors are selected. The most recent contractors selected received a contract for approximately $3.5 million over a 3-year period. The bid documents require that JOC contractors bid an adjustment factor based on the CTC, which is supposed to be used when pricing projects performed under the JOC program. For example, an adjustment factor of 1.0 would indicate that the City would pay the exact prices listed in the CTC.

According to The Gordian Group, most contractors bid an adjustment factor ranging from 0.90 to 1.00, ensuring a fair price to the project owner while allowing the contractors to make a profit. Based on information provided to VLS by the City Auditor, the adjustment factors bid and agreed to between the City and the JOC contractors are much lower than 1.00. The most recently bid adjustment factors were in the 0.50 to 0.71 adjustment factor range. The Gordian Group communicated to VLS that these low adjustment factors are not an accurate representation of the actual cost that a contractor would incur in order to provide a specific service to the City. On 12/29/14, this concern was expressed by The Gordian Group via a letter issued to the senior project manager of the JOC program stating, "It is not possible to be successful under a JOC contract with a bid below 0.80 unless the owner does not perform an adequate review of the proposals."

JOC Program Risk Areas Identified Through Interviews

Based on the results of the interviews conducted by VLS, the following areas were identified as high-risk or of concern:

[11] Based on discussions with the City Auditor, the City's JOC program has an average project size of $100,000. However, the program has grown to include projects as large as $14,000,000.

1) *JOC contractors prepared and submitted inaccurate and inflated proposals:* Several individuals interviewed indicated that the proposals submitted by JOC contractors included inflated quantities and/or incorrect line items in order increase the proposal estimate. This "padding" of proposals was done to offset the low adjustment factors bid by the JOC contractors. This was an understood practice within the JOC program.

   According to the interviewees, if the JOC contractors were to use the adjustment factors that were bid to the City, and included only the needed line items from the CTC to complete the project, the contractors would not be able to cover their costs of performing the work and make a reasonable profit.

2) *Project managers did not have time to adequately review proposals:* Due to the workload of project managers, there often was not adequate time to thoroughly review project proposals to ensure accuracy. Additionally, it was difficult for project managers to enforce the use of the CTC, which allowed increased use of Non-Pre Priced (NPP) items.

3) *Project managers used their experience to determine whether proposal costs were reasonable:* Because the "padding" of proposals was an accepted practice, project managers used their judgment, experience, and/or the department budget to determine what was a reasonable price quoted by the JOC contractor in their proposal. This essentially resulted in the City paying negotiated prices to the JOC contractors for work performed.

4) *The scope of work was prepared by copying the JOC proposal:* In some instances, the project managers used the proposals submitted by the JOC contractors to prepare the scope of work rather than defining the scope of work prior to the contractor preparing the proposal. This allowed the two documents to match; however, the scope of work would not accurately reflect the work performed.

5) *Some projects were done as "pass-throughs":* Certain projects were performed as pass-throughs, which was not the intention of the program. This was generally the result of a City department having a preferred vendor, product, or material. The JOC contractor was asked to use the preferred vendor, product, or material in performing the work.

Risk to the City

These practices may circumvent the provisions of the JOC program and may leave the City vulnerable to the risk of overpayment for work performed by the JOC program contractors. Additionally, the City may not be compliant with the requirements of California Public Contract Code.

Planning for Phase 2

VLS held a briefing meeting with the City Auditor to review the results of Phase 1. As a result, it was determined that Phase 2 would include a detailed review of four JOC projects. The criteria for the City Auditor in selecting these projects for testing were as follows:

- Projects that took place between October 2013 and February 2015 (the City Auditor's audit period)
- Projects under $200,000 (85% of the projects within the audit period were under this amount)
- Projects that were the most common type of project performed (i.e., general construction, park upgrades, plumbing, etc., which composed approximately 63% of the projects in the audit period)
- Projects with proposals that had no more than one revision made by the project manager based on a review of the proposal in the eGordian system[12]
- Projects that were not roofing projects (these projects were performed as "pass through" negotiated projects)
- Projects with project managers currently working with the City (to ensure access to project files and the ability to speak to project managers regarding the scope of work)
- Projects with site locations that would be difficult to access during test work were excluded

Once the list of projects was narrowed down based on the above criteria, the City Auditor and VLS construction consultant judgmentally selected four projects based on the risk areas identified during Phase 1 (e.g., quantity of non-pre priced items included in the JOC contractor proposal, assigned project manager, JOC contractor that performed the work, etc.). The following is a listing of the four projects selected.

1) Long Beach Marine Stadium Restroom Renovation – Project # 17J0021
2) Cressa Park Fencing - Project # 18J0005
3) Long Beach Library Carpet Installation - Project # 15J0050
4) Long Beach El Dorado Park Restroom Rehabilitation– Project # 15J0046

Through a review of related project documentation, a review of photographs of the sites prior to the commencement of work, interviews with project managers, and site

[12] The eGordian system used by the City also stores certain project documents. Based on the interviews conducted in Phase 1, certain project managers spent more time with the JOC contractors reviewing and editing proposals to ensure they were as accurate as possible. Project proposals that had no more than one revision by a project manager had a higher likelihood of being inaccurate or inflated based on the theory that the project manager simply accepted what the JOC contractor submitted.

inspections, these four projects were analyzed by the VLS construction consultant. The results of this analysis are included in sections VI through IX (pages 21 through 50).

V. Phase 2: Public Record and Internet Searches

Public record database and Internet searches were conducted of certain individuals involved with the JOC program to assist in identifying possible conflicts of interest. For current City employees working within the JOC program (project managers), only a contractor's license search was performed. This search was performed to determine if the employee possessed a contractor's license affiliated with a construction company that could have performed work as a subcontractor on a project within the JOC program. Based on the searches performed, none of the City's current employees (project managers) appeared to have a contractor's license. No additional research was conducted for current City project managers working in the JOC program.[13]

Public record and Internet searches were conducted for project managers that were consultants and/or former City employees.[13] These searches were performed to identify any possible business affiliations that could create a potential conflict of interest if said project manager (current/former) had provided construction services to the City in the JOC program as a subcontractor. The results of the searches were provided to the City Auditor so that additional review could be performed of internal City records. The VLS construction consultant used the results of the public record and Internet searches while analyzing the four projects identified for Phase 2. Based on the information available and the work performed, none of the business affiliations identified appeared to have performed work for the City as a subcontractor in the JOC program.

VLS reviewed only project documents available at the City and did not conduct a review of the books and records of the JOC contractors, subcontractors, or subconsultants responsible for the four projects selected. Had a review of the JOC contractors' (or subcontractors' or subconsultants') books and records been performed, additional information related to potential conflicts of interest may have been identified.[14]

[13] In December 2015, the City Auditor provided to VLS a list of current and former JOC project managers. The list identified whether the project manager was a current City employee, a former City employee, a current consultant project manager that was formerly a City employee, and a current consultant project manager that was never a City employee.

[14] A review of the books and records of a JOC contractor would have identified all subcontractors paid by a JOC contractor in performing the work on a specific project for the City. Because VLS did not perform a review of the JOC contractors' books and records, VLS did not have this information available during the work performed and relied on information available in the City's files; therefore, it is possible that not all relevant subcontractor relationships were identified.

VI. Phase 2: JOC Project Review – Marine Stadium Restroom Renovation

The Marine Stadium Restroom Renovation project was selected for testing. This project entailed the demolition of an existing restroom building of approximately 980 square feet and the installation of landscaping. The project number was 17J0021 and was awarded to contractor Bitech Construction Company who had bid an adjustment factor of 0.5340. The total cost of the project paid by the City was $105,758.85, which included one modification (supplement) to the original scope.[15]

Scope of Work Performed

The VLS construction consultant received and reviewed the contractor price proposal details submitted by Bitech Construction Company. This documentation included the original scope of work, which was finalized on 8/27/14, and the supplemental job order proposal, which was finalized on 10/20/14. The total price for the entire project was $105,758.85.[16] The VLS construction consultant also received and reviewed photographs that were taken of the site and building prior to the commencement of the work. In addition, the VLS construction consultant met with the project manager for the City who oversaw this project from procurement to completion and toured the location where the work was performed.

The original scope of this project included the following:

- Remove and replace concrete sidewalk, curb and gutter and handicap ramps
- Demolition of existing restroom building
- Abatements of existing asbestos and lead paint
- Removal of existing vegetation, irrigation lines, water, sewer and electrical lines
- Grading and related site work improvement
- Waterproofing of adjacent building
- Landscape and irrigation

The supplemental scope of this project included:

- Run new electrical line from the maintenance building to existing irrigation controller
- Reroute existing water line to maintenance building

[15] The total for the entire project was $105,758.85. This includes both the original proposal and supplement 1. The original proposal value was $103,270.58 and was approved on 8/27/14. The supplemental proposal was $2,488.27 and was approved on 10/20/14. VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed.

[16] Although the proposals were finalized on the dates indicated, VLS received the print out for the contractor price proposal details dated 12/23/15. The date of 12/23/15 is the date the information was retrieved from the eGordian system and not the date of the original job order proposal.

- Remove one additional tree from the site
- Keep the temporary fence during 30 day plant establishment period

Assessment of JOC Proposal

The VLS construction consultant reviewed the contractor's price proposal submitted by Bitech Construction Company for the Marine Stadium Restroom Renovation. This project contained a supplemental proposal of $2,488.27 in addition to the cost reflected in Table 5. The supplement is analyzed in Table 6. Table 5 includes the line item descriptions, quantities, and CTC unit prices listed in the original proposal for the Marine Stadium Restroom Renovation project. The far right column ("VLS Notes") references the VLS assessment of each line item, which is included below the table. Items without a VLS note indicate proposal line items that appear to be properly included in the appropriate quantities.

Table 5 : Marine Stadium Restroom Renovation - VLS Assessment of JOC Contractor Proposal

Item Number	Description[17]	Quantity	CTC Unit Price	Total x JOC Factor 0.5340	VLS Notes
1	Collect existing debris and load into truck or dumpster per cubic yard of debris removed. CY	100	$ 18.87	$ 1,007.66	
2	40 cubic yard dumpster (5 ton) "construction debris" includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous materials. EA	15	552.09	4,422.24	(a)
3	Drop off asphalt at recycling center. CY	22	32.52	382.03	(b)
4	Drop off concrete at recycling center. CY	40	27.10	578.86	
5	Trees, stumps, and brush landfill dump fee. CY	97	15.91	824.11	
6	Excavated dirt landfill dump fee. CY	130	12.73	883.72	(c)
7	Asbestos and lead paint abatement for Marine Stadium restroom (NPP Task - no adjustment factor applied). LS	1	8,410.00	8,410.00	(d)
8	Demolition of existing restroom including all utilities except electrical box (protect in place) (NPP Task – no adjustment factor applied). LS	1	12,504.00	12,504.00	(e)
9	>3" to 6" By machine, breakup, and remove rod reinforced concrete paving. SY	170	20.89	1,896.39	(f)
10	>3" to 6" By machine, breakup, and remove bituminous paving. SF	950	3.72	1,887.16	(f)
11	Saw cut minimum charge for projects where the total saw cutting charge is less than the minimum charge, use this task exclusively. EA	1	500.97	267.52	
12	90 Mil hot applied rubberized asphalt waterproofing coating, vertical surface includes primer. SF	200	1.39	148.45	
13	2-1/2" Schedule 80 PVC pressure pipe. Installation. LF	100	9.44	504.10	(g)
13a	2-1/2" Schedule 80 PVC pressure pipe. Demolition. LF	100	5.26	280.88	(g)
14	8" Diameter x 44 high concrete bollard. Installation. EA	4	877.40	1,874.13	(h)
14a	8" Diameter x 44 high concrete bollard. Demolition. EA	4	145.12	309.98	(h)
15	Clearing - Medium brush without grub. ACR	1	484.49	258.72	(i)

[17] Line item descriptions are included as they appeared in the JOC contractor proposal.

Item Number	Description[17]	Quantity	CTC Unit Price	Total x JOC Factor 0.5340	VLS Notes
16	<24" to 36" Tree removal. Includes cutting up tree, chipping and loading. EA	6	1,329.61	4,260.07	(j)
17	Finish grading for building foundation and other structures by hand. SY	555	8.94	2,649.55	(k)
18	Cut, shape, and rough grading for roadways, parking areas, landscaping and embankments by machine in soil. CY	130	4.71	326.97	(l)
19	Finish grade for curb and gutter. LF	60	1.01	32.36	
20	Sand bag with 50 LB sand. Ea	1200	3.15	2,018.52	(m)
21	Bag removal. EA	1200	1.79	1,147.03	(m)
22	3' high silt fence with stakes at 4" OC. LF	300	2.12	339.62	
23	Quartzite paving (No NPP Task - No adjustment factor applied). SF	466	15.00	6,990.00	(n)
24	Planting California Gray Rush Tree, Foxtail Actave tree, Baby BJ, Coppertone and Dymondia per plan. (No NPP Task - No adjustment factor applied). LS	1	23,900.00	23,900.00	(n)
25	Demolish existing irrigation system and install new irrigation for Marine Stadium restrooms area. (No NPP Task – No adjustment factor applied). LS	1	15,413.00	15,413.00	(n)
26	6"x 12" Cast in place concrete curb – Installation. LF	20	12.41	132.54	
26a	6"x 12" Cast in place concrete curb – Demolition. LF	20	6.44	68.78	
27	6"x 24" Concrete gutter with 6" cub and face - straight – Installation. LF	60	26.72	856.11	
27a	6"x 24" Concrete gutter with 6" cub and face - straight – Demolition. LF	60	10.60	339.62	
28	4" cast in place concrete sidewalk with wire mesh. SF	750	6.56	2,627.28	(o)
29	For sidewalk without wire mesh, deduct. SF	0	(0.52)		
30	Installation of 7' Galvanized chain link fence, 9 gauge coiled spring mesh, top and bottom rails, 2-1/2" line post at 10' O.C>, 3" corner posts. LF	120	24.11	1,544.97	(p)
30a	Demolition of 7' Galvanized chain link fence, 9 gauge coiled spring mesh, top and bottom rails, 2-1/2" line post at 10' O.C>, 3" corner posts. Demolition. LF	120	3.58	229.41	(p)
31	Demolition of 1-5/8" Galvanized steel top rail, tie wires and fittings. LF	120	0.77	49.34	(q)
32	Demolition of 1-5/8" Galvanized steel top rail, tie wires and fittings. LF	120	0.77	49.34	(q)
33	Demolition of 7' Full height fabric chain link #9 gauge, 1.2 Oz coating, 2" mesh LF	120	2.81	180.06	(r)
34	Demolition of 4' Wide x7' high single gate galvanized steel without barbed wire. EA	1	22.48	12.00	
35	Demolition of 20' long x 7' high sliding gate. EA	1	779.48	416.24	
36	Installation of Stone mulch, decomposed granite. CY	20	93.96	1,003.49	(s)
37	Roll top soil by hand. SY	500	2.30	614.10	(t)
38	Spread top soil by hand from stockpile. CY	33	49.12	865.59	
39	Furnish and place imported screened topsoil, 2' deep. SY	555	2.58	764.63	
	Total			**$ 103,270.58**	

a) Item 2 – A 40 cubic yard dumpster in the quantity of 15 for a total of 600 cubic yards of debris appears to be excessive for the scope of work. A quantity of five for a total of 200 cubic yards would have been sufficient to complete the scope of work.

b) Item 3 – A quantity of 22 cubic yards of asphalt appears to be an overstatement. Only 11 cubic yards would have been sufficient to complete the scope of work.
c) Item 6 – It appears that this line item should not have been included, as this project did not require that excavated dirt go to a landfill.
d) Item 7 – This line item should not have been an NPP item. Lead paint and asbestos abatement prices are included in the CTC.
e) Item 8 – This line item should not have been an NPP item. Demolition prices are included in the CTC.
f) Items 9 and 10 – These line items should have been covered by the scope and pricing included in line item 8 and should not have been listed separately.
g) Item 13 – The VLS construction consultant could not identify where a schedule 80 PVC pressure pipe demolition would have been necessary as part of this project. This line item should not have been included.
h) Items 14 and 14a – Steel pipe bollards of 4" diameter were used in this project, not 8" concrete bollards. In addition, it does not appear that this project required the demolition of existing bollards; therefore, while line item 14 simply listed the incorrect description, line item #14a should not have been included.
i) Item 15 – The unit of measure of one acre is stated. The project included only 0.10 acre and not a full acre; therefore, the quantity is overstated.
j) Item 16 – The incorrect line item was used. Per a review of the photographs taken before the project had commenced, it does not appear that any of the seven trees were 24" to 36" in diameter. The trees were at most 12" at breast height diameter. The line item for a 12" should have been used rather than a line item for 24" to 36" at breast height diameter.[18]
k) Item 17 – The incorrect line item was used. Per a review of site conditions, it does not appear that grading for building foundation or structure was necessary, as there was no new structure built.
l) Item 18 – Cubic yards of 130 in quantity appears excessive. At most, there may have been 50 cubic yards based on the plans for the project.
m) Items 20 and 21 – Per a review of the photographs taken prior to commencement of the work, the quantity of 1,200 sand bags appears excessive. Only 420 sand bags were necessary.
n) Items 23 through 25 – These items should not have been NPP items. Landscaping prices are included in the CTC.
o) Item 28 – The quantity of 750 SF appears excessive. A quantity of 608 SF would have been sufficient based on a review of the plans.
p) Item 30 – The description does not appear consistent with the conditions as identified through a review of the photographs taken prior to commencement of the work. Line item 30 indicates "installation" and 30a indicates "demolition." Line item 30 indicates installation of fence. However, only a temporary fence was used to line

[18] The proposal listed only six trees to be removed, and the supplement proposal listed one additional tree to be removed. Per a review of the photographs taken of the site prior to commencement of the project, a total of seven trees needed to be removed.

the work area perimeter. The CTC construction task for temporary fencing should have been used instead. However, per review of photographs of the site prior to commencement of work it appears a fence existed prior to commencement of the project, thus the line item for demolition of the existing fence is correct.

q) Items 31 and 32 – These line items do not appear to be part of what would be needed to complete this project. These items are part of fence installation in line item 30, which, based on the observation of the work performed, did not take place (only demolition of a fence took place and no new fence was installed).

r) Item 33 – This line item should not have been included as this is part of line item 30, demolition of chain link fence.

s) Item 36 – A quantity of 20 cubic yards does not match the job conditions. At most, approximately 7 cubic yards would have been sufficient for this project.

t) Item 37 – Roll top soil by hand in a quantity of 500 SY (4,500 SF) does not match any area that would have needed to be rolled. Only 40 SY of top soil needed to be rolled.[19]

It appears that Bitech Construction Company included in the proposal quantities in excess of what was required for this project and items that were not necessary for this project. This is consistent with the concerns identified from the interviews conducted in Phase 1.

Table 6: Supplement 1 Marine Stadium Restroom Renovation - VLS Assessment of JOC Contractor Proposal

Item Number	Description	Quantity	CTC Unit Price	Total x JOC Factor 0.5340	VLS Notes
1	Electrician Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC. Contractor notes: *Make connection to the building, add breaker for controller, run new wires*	12	$ 72.28	$ 463.17	(a)
2	Laborer Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC. Contractor notes: *Trenching new electrical line and water line, backfill*	12	64.04	410.37	(b)
3	Plumber Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC. Contractor Notes: *make new connection for existing copper water line, disassemble and reassemble the water meter*	16	71.69	612.52	(c)
4	Temporary 6' High Chain Link Fence And Posts, Up To 6 Months. Contractor Notes: *Keeping temporary fence for 30 additional days of plant maintenance period*	360	1.52	292.20	
5	> 24" To 36" D.B.H. (Diameter At Breast Height) Tree Removal Includes cutting up tree, chipping and loading.	1	1,329.61	710.01	(d)
	Total			**$ 2,488.27**	

[19] "Rolling" is a construction term that means compacting. In this case, it would be compacting the top soil.

a) Item 1 – The CTC was used to identify the hourly unit price for electrician tasks. However, instead of listing a generic line item such as this, the actual construction task to be performed should have been listed.
b) Item 3 – The CTC was used to identify the hourly unit price for laborer tasks. However, instead of listing a generic line item such as this, the actual construction task to be performed should have been listed.
c) Item 2 – The CTC was used to identify the hourly unit price for plumber tasks. However, instead of listing a generic line item such as this, the actual construction task to be performed should have been listed.
d) Item 4 – The incorrect line item was used. Per a review of the photographs taken before the project had commenced, it does not appear that any of the seven trees were 24" to 36" in diameter. The trees were at most 12" at breast height diameter. The line item for a 12" should have been used rather than a line item for 24" to 36" at breast height diameter.[20]

Costing Proposal – Actual Price, CTC Price, General Contractor Price

In Table 7, Row 1 provides the actual price the City paid.[21] Row 2 provides an estimated price if the CTC had been properly used with no adjustment factor applied. Row 3 provides an estimated price if the CTC had been properly used and the adjustment factor applied. Row 4 provides the estimated price as if a general contractor had bid the work at market rates.

Table 7: Marine Stadium Restroom Renovation Project - Price Comparison

Row Number	Description	Amount
1	Actual price paid for project ($103,271 original proposal plus $2,488 supplement 1)	$ 105,759
2	Estimate using CTC and no adjustment factor applied	$ 81,936
3	Estimate using CTC and adjustment factor of 0.5340 (the adjustment factor is not applied to NPP items)	$ 50,170
4	Estimate of general contractor bid	$ 74,060

It is the opinion of the VLS construction consultant that the CTC includes all of the items that were necessary to complete this project, and that the CTC pricing appears to accurately reflect the Long Beach area prices and wages. If the JOC contractor had used the CTC, the adjustment factor of 0.5340, and the proposal included only needed items in appropriate quantities, the City would have paid approximately $50,170 (Table 7, Row 3). The total cost to the City was $105,759, which is $55,589 (or 111%) more than what the

[20] The proposal listed only six trees to be removed, the supplement proposal listed one additional tree to be removed. Per review of photographs taken of the site prior to commencement of the project, it is evident that a total of seven trees needed to be removed.

[21] VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed.

City may have been contractually obligated to pay. Had the city enforced the use of the CTC and adjustment factors, the City would have paid significantly less for this work. However, it is the opinion of the VLS construction consultant that a contractor could not have completed this project for $50,170 and adequately covered the cost of the project and make a reasonable profit. Had the contractor bid a reasonable adjustment factor of 0.90 to 1.00, the accurate use of the CTC would have allowed the contractor to recuperate its cost, cover its overhead, and make a reasonable profit. Based on the market value as shown in the general contractor estimate on Table 7, Row 4, the estimate of a general contractor bid is approximately $74,060.

It appears that the proposal submitted by Bitech Construction Company for this project included quantities in excess of need or items not required for this project. Additionally, the proposal included NPP items that should not have been listed as NPP items as they were included in the CTC. If the CTC appropriate line items and pricing had been used for these items, the adjustment factor could have been applied. By doing this, Bitech Construction Company increased the proposal amount to a price that would be sufficient to cover the cost of the project and may have exceeded the cost that a general contractor would have bid for this project by approximately $31,699 or 42.8%.[22]

Table 8 shows the detailed line item descriptions, quantities, and costs used to arrive at the amounts included in Table 7 (Rows 2, 3, and 4). The costs and estimates included in Table 8 incorporate all costs related to NPP items submitted by the JOC contractor.[23] The line items and quantities included in Table 8 are those that the VLS construction consultant estimates were necessary to complete the project. The table includes the following information:

- **VLS Item Number:** Item number assigned by VLS for reference purposes
- **Description:** Description of the construction task
- **Quantity:** Quantity needed for the construction task described
- **CTC Unit Price:** The price listed in the CTC for the construction task described
- **Total (Quantity x Price):** A calculation of the quantity multiplied by the CTC unit price listed for the described construction task
- **Total x JOC Factor 0.5340:** The total amount of the construction task described multiplied by the applicable adjustment factor
- **General Contractor Unit Price:** The per unit price that would have been reasonably charged by a general contractor based on the VLS construction consultant's experience

[22] The calculation is as follows: $105,759 - $74,060 = $31,699. The calculation for the percentage difference is as follows: $31,699 / $74,060 = 0.428.

[23] In addition, the costs and estimates specific to only NPP items are addressed independently in Table 9.

- **Total General Contractor Price:** The price that would have been reasonably charged by a general contractor based on the VLS construction consultant's experience

Table 8: Marine Stadium Renovation Project - General Contractor Estimated Cost

VLS Item Number	Description	Quantity	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5340 (Factor Not Used on NPP)	General Contractor Unit Price	Total General Contractor Price
1	Demo Chain Link Fence	50	$ 2.39	$ 119.50	$ 63.81	$ 2.50	$ 125.00
2	Chain link gate demolition	3	27.10	81.30	43.41	30.00	90.00
3	Tree removal 12"DBH	7	664.80	4,653.60	2,485.02	353.36	2,473.52
4	Waterproofing existing buildings	200	1.39	278.00	148.45	1.39	278.00
5	Excavate/backfill to waterproof existing building backhoe with operator	1	992.27	992.27	529.87	1,180.52	1,180.52
6	Import soil (per plans) CY	47	36.99	1,738.53	928.38	40.00	1,880.00
7	Demolition of building, approx. 1,000 square feet. (GSF)[24]	1,000					
8	Backhoe with operator per day	3	992.27	2,976.81	1,589.62	1,180.52	3,541.56
9	Backhoe with breaker attachment. With operator per day	1	1,642.24	1,642.24	876.96	1,643.41	1,643.41
10	13 yard Dump truck with driver per day	6	1,243.68	7,462.08	3,984.75	914.58	5,487.48
11	Building construction debris landfill dump fees per CY	250	13.22	3,305.00	1,764.87	14.25	3,562.50
12	Lead abatement NPP no way to quantify. Building does not exist. Used contractors NPP price[25]	1		8,410.00	8,410.00		8,410.00
13	Demo sidewalk CF	182.25	6.82	1,242.95	663.73	1.50	273.38

[24] Could not locate complete building demolition in CTC. In order to analyze, this item was segmented into individual components using the CTC and these are listed in line items 8 through 11.

[25] Although this item is listed as NPP, the CTC does provide details for this type of work. The VLS construction consultant included the JOC contractor NPP price because the restroom building was demolished as part of the project, and there was no way for the VLS construction consultant to quantify abatement necessary for lead and asbestos.

VLS Item Number	Description	Quantity	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5340 (Factor Not Used on NPP)	General Contractor Unit Price	Total General Contractor Price
14	4" concrete sidewalk with wire mesh SF	607.50	6.56	3,985.20	2,128.10	6.25	3,796.88
15	DG for 6" walkway CY	8	60.82	486.56	259.82	72.00	576.00
16	Skid steer for walkway.	1	966.61	966.61	516.17	1,088.40	1,088.40
17	6' wide walkway 54 pieces of flagstone pavers SF	121.50	14.21	1,726.52	921.96	8.26	1,003.59
18	Roller for DG SY	40	2.30	92.00	49.13	4.00	160.00
19	Demo curb and gutter	60	10.60	636.00	339.62	2.88	172.80
20	Install curb and gutter LF	60	26.72	1,603.20	856.11	26.23	1,573.80
21	Finish grading for curb and gutter	60	1.01	60.60	32.36	4.00	240.00
22	Demo curb	12	6.44	77.28	41.27	2.88	34.56
23	Install 8" curb	12	12.41	148.92	79.52	17.90	214.80
24	40 yard dumpsters	1	552.09	552.09	294.82	490.00	490.00
25	Concrete/asphalt low side dumpster 7yard	5	450.00	2,250.00	1,201.50	450.00	2,250.00
26	Concrete dump fee CY (Recycle center) CY	27.50	27.10	745.25	397.96	36.66	1,008.15
27	Asphalt dump fee (recycle center) CY	11	32.52	357.72	191.02	36.66	403.26
28	Clear grub and dispose SF	2,500				0.15	375.00
29	Stumps brush landfill CY	40	15.91	636.40	339.84		This item is included in line item 28
30	Grub existing plants per acre	0.20	484.49	96.90	51.74		This item is included in line item 28
31	Temp fence 6 month rental	360	1.52	547.20	292.20	0.96	345.60
32	Disconnect and cap utilities NPP	1	250.00	250.00	250.00	250.00	250.00
33	Saw cut curb and sidewalk minimum charge	1	500.00	500.00	267.00	500.00	500.00
34	Demo AC ramp SY	2.20	3.72	8.18	4.37	7.83	17.23
35	Demo asphalt per SY	105.55	3.72	392.65	209.67	7.83	826.46
36	Demo ex irrigation	300	0.84	252.00	134.57	0.75	225.00
37	Sand bags containment area each	420	3.15	1,323.00	706.48	4.00	1,680.00
38	Remove sandbags	700	1.79	1,253.00	669.10	0.90	630.00
39	Silt fence	350	2.12	742.00	396.23	2.20	770.00

VLS Item Number	Description	Quantity	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5340 (Factor Not Used on NPP)	General Contractor Unit Price	Total General Contractor Price
40	Waddle (each)	2	90.26	180.52	96.40	100.00	200.00
41	3' x4" bollards LF	28	37.28	1,043.84	557.41	50.00	1,400.00
42	Mulch cedar chips CY	22	93.99	2,067.78	1,104.19	43.15	949.30
43	Soil Planting prep 8" deep by machine SF	3,500	0.78	2,730.00	1,457.82	0.75	2,625.00
44	Dymondia plant per flat NPP	70		1,188.60	1,188.60	50.00	3,500.00
45	Baby pj plant 1 gal each NPP	450		1,935.00	1,935.00	4.50	2,025.00
46	Copper tone plant	100	8.95	895.00	477.93	18.00	1,800.00
47	California gray rush plant 5 gal	1	20.99	20.99	11.21	125.00	125.00
48	Foxtail actave plant 5 gal	14	15.50	217.00	115.88	95.00	1,330.00
49	Planting 5 gal	15	40.23	603.45	322.24		This item is included in line item 48
50	Ground cover planting	1,750	1.53	2,677.50	1,429.79		This item is included in line item 48
51	1 gal	100	12.87	1,287.00	687.26		This item is included in line item 48
52	Main irrigation trench	70	1.03	72.10	38.50	1.50	105.00
53	Backfill 24" trench	70	0.30	21.00	11.21		This item is included in line item 52
54	Quick coupler valve	2	135.32	270.64	144.52	150.00	300.00
55	11/4" PVC main line	70	3.29	230.30	122.98	3.80	266.00
56	Flow sensor	1	860.64	860.64	459.58	750.00	750.00
57	Control valve	2	241.86	483.72	258.31	250.00	500.00
58	11/4 back flow assembly NPP	1		1,734.98	1,734.98	1,450.00	1,450.00
59	1" ball valve	2	65.65	131.30	70.11	75.00	150.00
60	2" pipe sleeve LF	10	4.12	41.20	22.00	12.50	125.00
61	11/4" PVC	20	3.29	65.80	35.14	3.80	76.00
62	1" PVC	10	2.26	22.60	12.07	3.10	31.00
63	3/4 PVC	460	1.88	864.80	461.80	1.25	575.00
64	Swing joints	30	11.00	330.00	176.22	15.00	450.00
65	Irrigation Trench	500	0.91	455.00	242.97	1.50	750.00
66	Backfill trenches	500	0.14	70.00	37.38		This item is included in line item 65
67	12" pop up rotary sprinkler	30	72.65	2,179.50	1,163.85	62.00	1,860.00
68	Irrigation smart controller	1	1,348.59	1,348.59	720.15	1,400.00	1,400.00
69	Controller SS enclosure	1	2,415.05	2,415.05	1,289.64	950.00	950.00

VLS Item Number	Description	Quantity	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5340 (Factor Not Used on NPP)	General Contractor Unit Price	Total General Contractor Price
70	Weather sensor	1	932.62	932.62	498.02	450.00	450.00
71	Underground Control wiring CLF	0.30	117.72	35.32	18.86	125.00	37.50
72	3/4" PVC for electrical to new controller and back feed existing controller	50	2.89	144.50	77.16	5.44	272.00
73	3/4 PVC 90° elbows	4	17.54	70.16	37.47	22.00	88.00
74	#12 thhn	150	0.55	81.90	43.73	0.65	97.50
75	3/4" emt w 3#12 thhn assembly	60	6.13	367.80	196.41	6.50	390.00
76	20amp 1 pole breaker (add to existing)	2	36.08	72.16	38.53	54.91	109.82
77	3/4" condolets	2	20.79	41.58	22.20	67.87	135.74
78	Cage around back flow preventer NPP	1		250.00	250.00	250.00	250.00
79	Plastic underground valve box	8	113.05	904.40	482.95	120.00	960.00
	Total Cost of Project			**$81,935.88**	**$50,169.92**		**$74,059.74**

Quantify the Effect of Using NPP Items in Proposal

The original proposal included five NPP items for which the CTC and adjustment factor of 0.5430 was not used. By costing these items as NPP items, the JOC contractor charged the City for 100% of the cost to the contractor plus a 10% mark-up to cover overhead and profit. NPP items should be included only when the construction activity or needed items are not included in the CTC. When using NPP items, the JOC contractor is supposed to obtain three quotes before selecting a vendor or subcontractor. Per discussion with the project managers, there is no verification process to ensure that three bids were obtained by the JOC contractor when including NPP items in the proposal.[26] By using NPP items instead of using the CTC to price a construction task (when the construction activities are included in the CTC) the JOC contractors circumvent the JOC program requirements.

Table 9 provides the details of the NPP line items included in the proposal. This table includes the costs and estimates for only the NPP items, while the costs and estimates related to the entire project are displayed in Table 8. All of the cost information in Table

[26] Additionally, there is no evidence that three bids were obtained for these NPP items as the City was not able to provide the bids to the VLS construction consultant for review.

9 was taken from Table 8 and summarized for the NPP items only. Table 9 includes the following information:

- **Item Number from JOC Proposal:** Line item as numbered in the JOC proposal
- **Description:** Description as listed in the JOC proposal
- **JOC NPP Price:** The price listed by the JOC contractor in the proposal for this construction task
- **CTC Price:** The price listed in the CTC for this construction task
- **Total CTC Price x JOC Factor 0.5340:** The total price when multiplied by the adjustment factor
- **General Contractor Price with Sub Contract Mark Up of 10%:** The price that would have been reasonably charged by a general contractor based on the VLS construction consultant's experience, including a 10% mark-up
- **Difference (JOC NPP Price - General Contractor Price):** The difference between the price the City paid for the NPP item and the price that would have been reasonably charged by a general contractor based on the VLS construction consultant's experience

Table 9: Marine Stadium Restroom Renovation – Effect of Using NPP

Item Number from JOC Proposal	Description	JOC NPP Price	CTC Price	Total CTC Price x JOC Factor 0.5340	General Contractor Price with Sub Contract Mark Up of 10%	Difference (JOC NPP Price - General Contractor Price)
7	Asbestos and lead paint abatement for Marine Stadium restroom.[27]	$ 8,410.00	$	$ 8,410.00[28]	$ 8,410.00	$
8	Demolition of existing restroom including all utilities except electrical box	12,504.00	15,386.13	8,216.19	14,234.95	(1,730.95)
23	Quartzite paving	6,990.00	3,271.69	1,747.08	2,827.99	4,162.01
24	Planting California Gray Rush Tree, Foxtail Actave tree, Baby BJ, Coppertone, and Dymondia per plan.	23,900.00	13,622.32	8,729.92	12,354.30	11,545.70
25	Demolish existing irrigation system and install new irrigation for Marine Stadium restrooms area.	15,413.00	13,934.22	8,365.87	11,795.50	3,617.50
	Totals	$ 67,217.00	$ 46,214.35	$ 35,469.06	$ 49,622.74	$ 17,594.26

The scope of work specified for the NPP items listed in the proposal totaled $67,217 out of a total price of $105,759, which is 63% of the project costs. The JOC contractor should

[27] The VLS construction consultant was unable to quantify the lead and asbestos abatement necessary as the demolition of the building had already taken place. For this reason, although the CTC listed asbestos abatement, the VLS construction consultant was unable to calculate an amount based on the CTC pricing.

[28] Because the VLS construction consultant was unable to quantify the lead and asbestos abatement necessary for this line item, the JOC factor of 0.5340 was not applied to this line item.

have been able to use the CTC pricing for most of these items, including line item 7, and should not have included these as NPP items. Each NPP item included by the JOC contractor is discussed further below:

Item number 7 from JOC proposal – The VLS construction consultant was unable to quantify the lead and asbestos abatement needed to be performed for line item 7, thus no CTC pricing was identified for this line item. The restroom was demolished as part of the project. In order for the VLS construction consultant to be able to quantify the lead and asbestos abatement necessary, he would have had to assess the restroom prior to its demolition.

Item number 8 from JOC proposal – The VLS construction consultant was unable to locate this construction task in the CTC as it was written in the proposal. Instead, this item needed to be separated into four components, all of which were listed in the CTC and did not need to be listed as an NPP. The components for this item are listed in Table 8: *Marine Stadium Renovation Project - General Contractor Estimated Cost*, line items 8 through 11. The price that would have reasonably been charged by a general contractor based on the VLS construction consultant's experience is approximately $14,234.95, which is $1,730.95 more than what the City paid for this item. The CTC price for these items was $15,386.13. Applying the appropriate adjustment factor would have brought the cost down to $8,216.19.

Item number 23 from JOC proposal – The VLS construction consultant was unable to locate this construction task in the CTC as it was written in the proposal. Instead, this item needed to be separated into four components, all of which were listed in the CTC and did not need to be listed as NPP items. The components for this item are listed in Table 8: *Marine Stadium Renovation Project - General Contractor Estimated Cost*, line items 15 through 18. The price that would have reasonably been charged by a general contractor based on the VLS construction consultant's experience is approximately $2,827.99, which is $4,162.01 less than what the City paid for this item. The CTC price for these items was $3,271.69. Applying the appropriate adjustment factor would have brought the cost down to $1,747.08.

Item number 24 from JOC proposal – The VLS construction consultant was unable to locate this construction task in the CTC as it was written in the proposal. Instead, this item needed to be separated into 24 components, only two of which were not listed in the CTC and needed to be listed as NPP items. The components for this item are listed in Table 8: *Marine Stadium Renovation Project - General Contractor Estimated Cost*, line items 42 through 51. Line items 44 and 45 are those that could not be priced through the CTC and were included by the VLS construction consultant as NPP items.[29] The price that would have reasonably been charged by a general contractor based on the VLS

[29] To price these NPP items, the VLS construction consultant relied upon his knowledge of the construction industry, job cost books, pricing quotes, and independent verification of prices through home improvement retail stores.

construction consultant's experience is approximately $12,354.30, which is $11,545.70 less than what the City paid for this item. Had the CTC pricing been applied, where possible, the cost before the adjustment factor would have been $13,622.32. Applying the appropriate adjustment factor to the CTC line items would have brought the cost down to $8,729.92.

Item number 25 from JOC proposal – The VLS construction consultant was unable to locate this construction task in the CTC as it was written in the proposal. Instead, this line item needed to be separated into 23 components, two of which were not listed in the CTC and needed to be listed as NPP items. The components for this item are listed in Table 8: *Marine Stadium Renovation Project - General Contractor Estimated Cost*, line items 52 through 73, and line items 78 and 79. Line items 58 and 78 are those that could not be priced through the CTC and were included by the VLS construction consultant as NPP items.[29] The price that would have reasonably been charged by a general contractor based on the VLS construction consultant's experience is approximately $11,795.50, which is $3,617.50 less than what the City paid for this item. Had the CTC pricing been applied, where possible, the cost before the adjustment factor would have been $13,934.22. Applying the appropriate adjustment factor to the CTC line items would have brought the cost down to $8,365.87.

It is the opinion of the VLS construction consultant that the JOC contractor could have used the CTC as most of the items necessary for this project appear to be listed in the CTC. The price that would have reasonably been charged by a general contractor for the NPP items, based on the VLS construction consultant's experience, is approximately $49,622.74, which is $17,594.26 less than what the City paid for all of the NPP items. The effect of including these NPP items is a difference of $31,748 when compared against what the City would have paid the JOC contractor if the CTC pricing and adjustment factor of 0.5340 had been used.[30]

Summary of Phase 2: JOC Project Review – Marine Stadium Restroom Renovation

It appears that Bitech Construction Company included in its proposal and supplement unnecessary items, items that were not accurate based on what was installed, and quantities exceeding what was required for this project. In addition, NPP items were used although the CTC includes most of these items when separated into the appropriate components. It is the opinion of the VLS construction consultant that the price the City paid for this project was not reasonable when compared to what a typical general contractor would have charged. Additionally, the price paid by the City was significantly more than it may have been contractually obligated to pay, which should have been the CTC pricing reduced by the adjustment factor bid by the JOC contractor.

[30] The calculation for this is the price paid by the City for the NPP items of $67,217 less $35,469, which is the amount that the City would have paid had the JOC contractor used the CTC pricing and 0.5430 adjustment factor ($67,217 – $35,469 = $37,748).

Based on the analysis performed by the VLS construction consultant, the project would have cost the City approximately $50,170 if the City had enforced the use of the CTC and adjustment factor per the contract with Bitech Construction Company. The total cost for this project to the City was $105,759; therefore, it appears that the City paid $55,589 (111%) more than may have been contractually required.[31] If the City had gone out for a public bid, the total project would have cost the City an estimated $74,060, which is $31,699 (42.8%) less than what the City paid for this project.

[31] The calculation for the difference is as follows: $105,759 – $50,170 = $55,589. The percentage difference is as follows: $55,589 / $50,170 = 1.11

VII. Phase 2: JOC Project Review – Cressa Park Fencing

The Cressa Park fencing project was selected for testing. This project was considered a park upgrade and consisted of the installation of a new chain-link fence at Cressa Park in the City of Long Beach. The project number was 18J0005 and the work was issued to contractor Allstate Engineering. The total project cost paid by the City was $28,178.34, which included one modification (supplement) to the original scope.[32] Allstate Engineering had bid an adjustment factor of 0.5699 that applied to this project.

Scope of Work Performed

The VLS construction consultant received the document detailing the scope of work requested by the City, the proposal from the JOC contractor that included the detailed scope of work dated 10/23/14 with a total of $27,100 quoted, and a supplemental detailed scope of work dated 2/18/15 with a total of $1,078. The total cost for the project was $28,178. After a review of the documents received for this project, the VLS construction consultant toured the site in the company of a project manager for the City. The project manager indicated that he began supervision of this project near the end of the project and had not been involved in the procurement process, thus he was unable to provide complete and detailed information regarding the proposal process. For this reason, the VLS construction consultant had a phone conversation with the previous project manager in charge of this project at commencement. Because the initial project manager was involved in the supervision of this project at the time the proposal process took place, he was able to provide VLS with the necessary additional information.

The scope of the project included the following:

- Removal of trash and debris from the park of about one forty-yard dumpster[33]
- Clearing of grub and debris from fence line
- Installation of six-inch bollards (some were changed to four-inch removable bollards per supplement modification 1)
- Installation of a new five-foot-high black vinyl covered chain link fence
- Change in fence line location as required during construction

[32] VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed.

[33] Photographs taken of the park site prior to the commencement of the construction project were used to assess the conditions of the site prior to the commencement of the construction project.

Assessment of JOC Proposal

The VLS construction consultant reviewed the price proposal submitted by Allstate Engineering for the construction of the park fencing at Cressa Park in order to assess the reasonableness of the line items included in the proposal. The adjustment factor bid by Allstate Engineering and used for this project was 0.5699. Table 10 includes the line item descriptions, quantities, and CTC unit prices listed in the proposal for the park fencing project at Cressa Park. The far right column ("VLS Notes") references the VLS assessment of each line item, which is included below the table. Items without a VLS note indicate proposal line items that appear to be properly included in the appropriate quantities.

Table 10: Long Beach Cressa Park Project – VLS Assessment of JOC Contractor Proposal

Item Number	Description[34]	Quantity	CTC Unit Price	Total x JOC Factor 0.5699	VLS Notes
1	Installation of portable toilets, Chemical	1	$ 109.25	$ 62.26	
2	Survey property lines on wooded area. LF	700	2.04	813.82	(a)
3	Collect existing debris and load into truck or dumpster per cubic yard of debris. CY	150	18.87	1,613.10	(b)
4	40 Cubic yards (5 ton) "construction debris" includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material. EA	4	552.09	1,258.54	(c)
5	Trees, stumps, and brush landfill dump fee. CY	150	15.91	1,360.07	(d)
6	Demolition of 12'x12" pressure treated heavy timber bean. LF	800	1.79	816.10	
7	Hand loading of cleared and grubbed material. CY	50	29.26	833.76	(e)
8	Fence line clearing, rough areas. LF	800	9.36	4,267.41	(f)
9	Tree trimming, medium cutting >6" to 12" diameter for pole line construction. LF	200	2.22	253.04	(g)
10	Spread excess or imported materials on site by hand. CY	20	39.06	445.21	
11	8" diameter hole, auger by machine fence post hole in soil. VLF	208	12.96	1,536.27	
12	10" Diameter hole, auger by machine fence post hole in soil. VLF	56	14.40	459.57	
13	Concrete Fill 8" diameter hole. VLF	208	12.31	1,459.22	
14	Concrete fill 10" diameter hole. VLF	56	15.05	480.31	
15	Installation of 3" Outside diameter galvanized steel post, 7' to 10' in length. LF	72	10.56	433.31	(h)
16	Installation for each top rail fitting. LF	8	1.85	8.43	(i)
17	For powder coated, add. LF	72	5.54	227.32	(j)
18	Installation of 5' vinyl cover chain link fence, 9 gauge coiled spring mesh, top and bottom rails, 2-1/2" line post at 10' OC, 3" corner post. LF	600	22.21	7,594.49	(k)
19	For installation in concrete (Excludes drilling). LF	400	1.00	227.96	(l)
20	Grounding for gates (per opening. EA)	1	363.85	207.36	(m)
21	6" steel pipe bollard, schedule 40, painted or powder coated. LF	98	49.11	2,742.80	
	Total			**$ 27,100.34**	

[34] Line item descriptions are included as they appeared in the JOC contractor proposal.

a) Item 2 – This item did not need to be part of the proposal because the City Parks department laid out the fence. It was not necessary for Allstate Engineering to perform any surveying.
b) Item 3 – Per a review of the photographs taken of the site prior to the work performed by Allstate Engineering, a site visit, and discussion with the project manager, only 40 cubic yards needed to be collected and loaded into a truck or dumpster. It appears that the cubic yards were overstated by 110.
c) Item 4 – Only one and not four 40-cubic-yard dumpsters were needed for this project. It appears that the quantity of dumpsters was overstated by three 40-cubic yard dumpsters.
d) Item 5 – Per discussion with the project manager, a quantity of only 40 cubic yards was needed; therefore, this line item appears to be overstated by 110 cubic yards.
e) Item 7 – This item appears repetitive of line item 4 and should not have been included here.
f) Item 8 – Only 500 feet of fence line was necessary. It appears that the feet of fence line was overstated by 300.
g) Item 9 – It could not be determined through the site visit and interviews if this line item was necessary; thus, it was included at a quantity that matched the current conditions observed. Only 120 feet of tree trimming would have been necessary, as only 120 feet of trees are present in the area of the newly built fence. It appears that the tree trimming was overstated by 80 feet.
h) Item 15 – This line item is included in item 18, as detailed in the CTC, and should not have been included separately.
i) Item 16 – This line item is included in item 18, as detailed in the CTC, and should not have been included separately.
j) Item 17 – This line item is included in item 18 and 21, as detailed in the CTC, and should not have been included separately.
k) Item 18 – A quantity of 500 linear feet, rather than 600 linear feet, was necessary for this line item. It appears that the length of 5-inch vinyl cover chain link fence was overstated by 100 linear feet.
l) Item 19 – This line item is included in other line items and should not be included separately.
m) Item 20 – Per discussion with the project manager, no grounding was required for this project.

It appears that Allstate Engineering included unnecessary items, repetitive items, and quantities exceeding what was required for this project. This is consistent with the concerns identified from the interviews conducted in Phase 1.

Costing Proposal – Actual Price, CTC Price, General Contractor Price

Table 11, Row 1 provides the actual price the City paid. Row 2 provides an estimated price if the CTC had been properly used with no adjustment factor applied. Row 3 provides an estimated price if the CTC had been properly used and the applicable

adjustment factor applied. Row 4 provides the estimated price as if a general contractor had bid the work at market rates.

Table 11: Cressa Park Fencing Project – Price Comparison

Row Number	Description	Amount
1	Actual price paid for project ($27,100 original proposal plus $1,078 supplement 1)	$ 28,178
2	Estimate using CTC and no factor applied	$ 30,047
3	Estimate using CTC and factor of 0.5699	$ 17,124
4	Estimate of general contractor bid	$ 27,935

The VLS construction consultant's assessment indicates that the CTC includes all of the items that were necessary to complete this project and the CTC pricing appears to accurately reflect the Long Beach area prices and wages. If the JOC contractor had used the CTC, the applicable adjustment factor of 0.5699, and the proposal included only needed items in appropriate quantities, the City would have paid approximately $17,124 (Table 11, Row 2). The total cost to the City was $28,178, which is $11,054 (or 65%) more than what the City may have been contractually obligated to pay. Had the City enforced the use of the CTC and adjustment factor, the City would have paid significantly less for this work.[35] However, it is the opinion of the VLS construction consultant that a contractor could not have completed this project for $17,124, adequately covered the cost of the project, and made a reasonable profit. Had the contractor bid a reasonable adjustment factor of 0.9 to 1.0, the accurate use of the CTC would have allowed the contractor to recuperate its cost, cover its overhead, and make a reasonable profit. As shown in Table 11, Row 4, the estimate of a general contractor bid is approximately $27,935.

It appears that the proposal submitted by Allstate Engineering for this project included items not needed for the project and quantities in excess of need in order to increase the proposal amount to a price that was sufficient to cover Allstate Engineering's cost to complete the project.

Table 12 provides the detailed line item descriptions, quantities, and costs used to arrive at the amounts included in Table 11, (Rows 2, 3, and 4). The costs and estimates included in this table incorporate costs related to NPP items.[36] The line items and quantities included in Table 12 are those that the VLS construction consultant estimates were necessary to complete the project. The table includes the following information:

- **VLS Item Number:** Item number assigned by VLS for reference purposes

[35] VLS did not audit or verify the actual payments made by the city to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed. The calculation for the difference is as follows: $28,178 - $17,124 = $11,054. The percentage difference is as follows: $11,054 / $17,124 = 0.645.

[36] In addition, the costs and estimates specific to only NPP items are addressed independently in Table 13.

- **Description:** Description of the construction task
- **Quantity:** Quantity needed for the construction task described
- **CTC Unit Price:** The price listed in the CTC for the construction task described
- **Total (Quantity x Price):** A calculation of the quantity multiplied by the CTC unit price listed for the described construction task
- **Total x JOC Factor 0.5699:** The total amount of the construction task described multiplied by the applicable adjustment factor
- **General Contractor Price:** The price that would have been reasonably charged by a general contractor based on the VLS construction consultant's experience

Table 12: Long Beach Cressa Park Project – General Contractor Estimated Cost

VLS Item Number	Description	Quantity	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5699	General Contractor Price
1	Portable Restrooms	1	$ 109.25	$ 109.25	$ 62.26	$ 165.00
2	Clear / grub fence line	500	9.36	4,680.00	2,667.13	825.00
3	6" bollards, 14 bollards 98 vertical linear feet	98	49.11	4,812.78	2,742.80	6,930.00
4	Hole for bollard, 4' deep 56 vertical linear feet. 10" diameter holes per proposal	56	14.40	806.40	459.57	Included in item 4
5	Concrete for bollard, 4', 56 vertical linear feet. 10" per proposal	56	15.05	842.80	480.31	Included in item 4
6	5' vinyl fencing	500	22.21	11,105.00	6,328.74	16,500.00
7	Corner/end Post holes, 15 posts, 60 vertical linear feet. Holes 4' deep per spec. 8" diameter per proposal	60	12.96	777.60	443.15	Included in item 7
8	Intermediate post holes, 42 posts, 3' deep per spec. 126 vertical linear feet. 8" diameter per proposal	126	12.96	1,632.96	930.62	Included in item 7
9	Corner/end 3" posts concrete fill	60	12.31	738.60	420.93	Included in item 7
10	Intermediate posts concrete fill	126	12.31	1,551.06	883.95	Included in item 7
11	Tree trimming per linear feet	120	2.22	266.40	151.82	440.00
12	Spread excess	20	39.06	781.20	445.21	572.00
13	Load existing debris, 40 yards	40	18.87	754.80	430.16	1,144.00
14	40 yard dumpster	1	552.00	552.00	314.58	660.00
15	Land fill for plants and brush	40	15.91	636.40	362.28	699.60
	Total Cost of Project			**$ 30,047.25**	**$ 17,123.93**	**$ 27,935.00**

Quantify the Effect of Using NPP Items in Proposal

The original proposal did not include any NPP items. However, this project included a supplemental proposal dated 2/18/15, which included the installation of six removable bumper posts in lieu of fixed bumper posts. The entire supplemental proposal was for a single NPP item. By costing this supplement as an NPP, the JOC contractor charged the City for 100% of the cost to the contractor plus a 10% mark-up to cover overhead and profit. NPP items should be included only when the construction activity or needed

items are not included in the CTC. In addition, the JOC contractor is supposed to obtain three quotes before selecting a vendor or subcontractor. Per discussion with the project managers, there is no verification process to ensure that three bids were obtained by the JOC contractor when including NPP items in the proposal.[37] By using NPP items instead of using the CTC to price a construction task (when the construction activities are included in the CTC) the JOC contractors circumvent the JOC program requirements. All items that were part of supplement 1 could have been priced using the CTC as all items necessary for this project are listed in the CTC. For this reason, it appears that it was not necessary to include an NPP item in the supplement 1 proposal. In addition, it appears that supplement 1 did not include a credit for the 6" bollards that were to be deleted from the original price.

The first row of Table 13 (under the column headings) provides the line item included in the supplement 1 proposal as submitted by All State Engineering. The subsequent rows provide the line items that should have been used from the CTC to perform the work listed in the supplement 1 proposal. A unit price as shown in the CTC is listed for these line items in the "CTC Unit Price" column. The "Total (Quantity x Price)" column provides the extended value of the quantity multiplied by the CTC Unit Price. The "Total x JOC Factor 0.5699" column provides the total price multiplied by the applicable adjustment factor. The "General Contractor Price" column provides an estimate of the cost that would have been reasonably charged by a general contractor based on the VLS construction consultant's experience and bids requested of vendors with whom the VLS construction consultant commonly works. For this project, it is the opinion of the VLS construction consultant that the work listed in this supplemental proposal should not have incurred additional costs to the project. Table 13 includes the costs and estimates specific only to NPP items, while the costs and estimates related to the entire project are displayed in Table 12.

[37] Additionally, there is no evidence that three bids were obtained for these NPP items, as the City was not able to provide the bids to the VLS construction consultant for review.

Table 13: Long Beach Cressa Park Project – Effect of Using NPP

Description	Quantity	Non-Pre Priced Item	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5699	General Contractor Price[38]
From Install 6 removable bumper posts in lieu of fixed bumper posts, furnish, and install 2 additional bumper posts. Modify fence lines per join scope walk dated 2/18/15[39]	8	$ 1,078	$	$	$	$
End/corner posts 3" per layout change from city. Added 2 posts. Lineal feet of fencing in above takeoff including actual post. Add two holes, 8 VLF	8		12.96	104	59	
Concrete fill for above two post, 8vlf	8		12.31	98	56	
6" bollards delete from original price (changed to removable)	-42		49.11	(2,062)	(1,175)	
Removable bollards, price per CTC	6		350.00	2,100	1,197	
Total Cost of Non-Pre Priced Items		**$ 1,078**		**$ 240**	**$ 137**	$

According to the VLS construction consultant, the item listed in the supplement 1 proposal would not have incurred additional cost to the project, as it was simply a change that did not require additional expense and a general contractor would not have charged additional cost. The scope of work specified in the NPP cost the City $1,078. Because the CTC does provide for these specific items at $240, when using an adjustment factor of 0.5699, the total cost for this work should have been approximately $137 when using the CTC. The difference between the $1,078 and the $137 is $941. The scope of work listed for this NPP item should have been calculated using the CTC.

Summary of Phase 2: JOC Project Review – Cressa Park Fencing

It appears that Allstate Engineering included in its proposal unnecessary items, repetitive items, and quantities exceeding what was required for this project. In addition, NPP items were used although the CTC includes these items. The price the City paid for this project was significantly more than it may have been contractually obligated to pay, which should have been the CTC pricing reduced by the adjustment factor bid by the JOC contractor.

Based on the analysis performed by the VLS construction consultant, the total project would have cost the City approximately $17,124 if the City had enforced the use of the CTC and adjustment factor as per the contract with All State Engineering. The total cost

[38] According to the VLS construction consultant, the work listed in this supplemental proposal should not have incurred additional costs to the project.

[39] The CTC pricing was not used by the JOC contractor for this item, thus, no CTC details were included for this line item.

for this project to the City was $28,178; therefore, it appears that the City paid $11,054 (or 65%) more than may have been contractually required.[40] If the City had gone out for a public bid, the project could have cost the City approximately $27,935, which is $243 (0.9%) less than what the City paid for this project.[41]

[40] The calculation for the difference is as follows: $28,178 - $17,124 = $11,054. The percentage difference is as follows: $11,054 / $17,124 = 0.645.

[41] The calculation for the difference is as follows: $28,178 – $27,935 = $243. The percentage difference is calculated as follows: $243 / $27,935 = .009.

VIII. Phase 2: JOC Project Review – Long Beach Library Carpet

The Long Beach Library Carpet project was selected for testing. This project was for the re-carpeting of the reading rooms inside five library branches: Bret Harte, Burnett, Alamitos, Brewitt and Bayshore branch libraries. The project number was 15J0050 and the work was issued to contractor New Creation Builders. The total project cost paid by the City was $96,179.76.[42] This total cost does not include one supplement to the original proposal as the supplement was difficult to test and an accurate pricing could not be determined due to similar projects occurring at the same locations during the same time period. Therefore, only the original proposal was analyzed.

Scope of Work Performed

In order to perform this review VLS used the original proposal with the detailed scope of work dated 08/22/14 with a total of $96,179.76 quoted. VLS received but did not analyze the supplemental proposal dated 09/25/14.[43] After review of the documents related to this project, the VLS construction consultant toured each of the five library sites.

The scope of the project included the following:[44]

- Floor preparation per carpet manufacturer's recommendation
- Disposal of existing carpet
- Moving and restoring unattached furniture and fixtures
- Relative humidity testing per carpet manufacturer's recommendation

Assessment of JOC Proposal

Based on the documents reviewed for this project, it was apparent that this project was done as a "pass through." The pricing to perform the work was obtained from a carpet installation company and then given to Thomasville Construction (the original JOC contractor assigned to the project), who submitted the cost estimate plus a 10% mark-up to the City. However, it was communicated to VLS by the project manager that, at the time that the work was to be performed, Thomasville Construction was no longer

[42] VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed.

[43] Although the supplemental proposal was reviewed, it was not tested and is not included in this analysis. Further details are provided in the following section, "Assessment of JOC Proposal."

[44] Each of these applied to the reading rooms at each of the Alamitos, Bayshore, Brewitt, Burnett and Bret Harte branch libraries within the City boundaries.

under contract with the City.[45] The new contractor selected, New Creation Builders, appears to have been given the price originally quoted to Thomasville Construction as the price on the proposal submitted by New Creation Builders closely matched the price submitted by Thomasville Construction. Because the quoted price was initially negotiated with the carpet installation company, and the carpet installation company became a subcontractor to the JOC contractor, this project was considered a "pass through" project. New Creation Builders, which bid at an adjustment factor of 0.56, submitted a proposal with a total price of $96,179.96.[46]

As mentioned above, this project included a supplemental proposal dated 09/25/14 for a total of $15,399.40, which included all of the same line items as the original proposal but for different quantities. The location of the work for the supplemental proposal was to be staff offices and hallways while the original proposal was for the reading rooms at the libraries previously listed. The scope of work specified in the supplemental proposal indicates that the carpet is to be removed and replaced in the staff offices and hallways at the Alamitos, Bayshore, Brewitt, Burnett, and Bret Harte branch libraries. The scope differed from the re-carpeting of the reading rooms and appeared to be additional work at rooms other than the reading rooms. This supplemental proposal could not be tested as additional work was being done to the staff offices and hallways in the libraries during the site visits, and this supplemental work could not be easily identified by the VLS construction consultant or the City project manager. Therefore, this supplemental proposal was not tested and is not included in this analysis. Only the original proposal for a total of $96,179.96 was analyzed.

Table 14 includes the line item descriptions, quantities, and CTC unit prices listed in the proposal for the Long Beach Library Carpet project. The far right column ("VLS Notes") references the VLS assessment of each line item, which is included below the table. Items without a VLS note indicate proposal line items that appear to be properly included in the appropriate quantities.

Table 14: Long Beach Library Carpet – VLS Assessment of JOC Contract Proposal

Item Number	Description[47]	Quantity	CTC Unit Price	Total x JOC Factor 0.56	VLS Notes
1	Hours of Carpet Installation	137	$ 53.41	$ 4,097.62	(a)
2	Hours of Miscellaneous Labor	160	64.04	5,737.98	(a)
3	Vacuum Floors in thousands of SF	400	18.20	4,076.80	(b)
4	1/4" Cementitious Backer Units for Installation on Floors SF	880	2.38	1,172.86	(c)

[45] VLS was not informed of the reason why Thomasville Construction was no longer under contract with the City. This could be because the 3-year contract had expired or the contractor had reached the cap of $1 million for that year.

[46] The proposal was created by New Creation Builders, but the project manager believed the proposal was prepared to match the original price quoted by Thomasville Construction.

[47] Line item descriptions are included as they appeared in the JOC contractor proposal.

Item Number	Description[47]	Quantity	CTC Unit Price	Total x JOC Factor 0.56	VLS Notes
5	4" High 1/8" Rubber Base LF	2000	2.43	2,721.60	(d)
6	4" High 1/8" Rubber Corner EA	240	2.44	327.94	(e)
7	Removing glue from concrete floor SF	8000	0.72	3,225.60	
8	42 ounce, non-patterned, Nylon carpet tile SY	2200	60.73	74,819.36	(f)
	Total Cost of Project			**$ 96,179.76**	

a) Items 1 and 2 – According to the representative for The Gordian Group and a review of the CTC, installation and furniture moving is included as part of the carpet unit cost. These two items add an additional 297 hours of labor onto the total cost. In the case of these libraries, there is more furniture removing and re-installation than a normal project and so the VLS construction consultant estimates that an allocation of 20 hours of labor (above what is already included in the CTC) per library (100 hours total) is reasonable, thus the number of hours was overstated by approximately 197.
b) Item 3 – This line item, vacuuming floors, accounts for 400,000 square feet. Per observation of the libraries' floors, the VLS construction consultant estimates the square footage of the library reading rooms (combined) is approximately 20,000 square feet.
c) Item 4 – The VLS construction consultant does not believe this item was required for this carpet installation project.
d) Item 5 – The VLS construction consultant measured 3,000 linear feet of base, as opposed to the listed 2,000 linear feet.
e) Item 6 – According to representatives of The Gordian Group, corner pieces are included in Item 5.
f) Item 8 – This item indicates that 42 ounce, non-patterned, Nylon carpet tile was used. However, the carpet that is installed is 19 ounce, Nylon carpet. A 19-ounce carpet is less expensive than a 42-ounce carpet.

As detailed above, it appears that New Creation Builders' proposal included items that were unnecessary, incorrectly quantified, and not accurate to what was installed. This appears consistent with the concerns identified from the interviews conducted in Phase 1.

Costing Proposal – Actual Price, CTC Price, General Contractor Price

Table 15, Row 1 provides the actual price the City paid for this project.[48] Row 2 provides an estimated price if the CTC had been properly used with no adjustment factor applied. Row 3 provides an estimated price if the CTC had been properly used and the adjustment factor applied. Row 4 provides the estimated price as if a general contractor had bid the work at market rates.

[48] VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed.

Table 15: Long Beach Library Carpet – Price Comparison

Row Number	Description	Amount
1	Actual price paid for project (includes only original proposal of $96,180 and does not include $15,399.40 for supplement 1)	$ 96,180
2	Estimate using CTC and no adjustment factor applied	$ 103,519
3	Estimate using CTC and adjustment factor of 0.56	$ 57,971
4	Estimate of general contractor bid	$ 95,577

The VLS construction consultant's assessment indicates that the CTC includes all the items that were necessary to complete this project and the pricing in the CTC appears to accurately reflect the Long Beach area prices and wages. If the JOC contractor had used the CTC, the adjustment factor of 0.56, and the proposal included only necessary items in appropriate quantities, the City would have paid approximately $57,971 (Table 15, Row 3). The total cost to the City was $96,180, which is $38,209 (or 66%) more than what the City may have been contractually obligated to pay. Had the City enforced the use of the CTC and adjustment factor, the City would have paid significantly less for this work.[49] However, it is the opinion of the construction consultant that a contractor could not have completed this project for $57,971 and adequately covered the cost of the project and made a reasonable profit. Had the contractor bid a reasonable adjustment factor of 0.9 to 1.0, the accurate use of the CTC would have allowed the contractor to recuperate its cost, cover its overhead, and make a reasonable profit. As shown in Table 15, Row 4, the estimate of a general contractor bid is approximately $95,577.

It appears that the proposal submitted by New Creation Builders for this project included items not needed and quantities in excess of need in order to increase the contract amount to a price that was sufficient to cover New Creation Builders' cost to complete the project.

Table 16 includes line item descriptions, quantities, and costs used to arrive at the amounts included in Table 15, (Rows 2, 3, and 4). The line items and quantities included in Table 16 are those that the VLS construction consultant estimates were necessary to complete the project. The table includes the following information:

- **VLS Item Number:** Item number assigned by VLS for reference purposes
- **Description:** Description of the construction task
- **Quantity:** Quantity needed for the construction task described
- **CTC Unit Price:** The price listed in the CTC for the construction task described
- **Total (Quantity x Price):** A calculation of the quantity multiplied by the CTC unit price listed for the described construction task

[49] VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed. The calculation for the difference is as follows: $96,180 - $57,971 = $38,209. The percentage difference is as follows: $38,209 / $57,971 = 0.66.

- **Total x JOC Factor 0.5600:** The total amount of the construction task described multiplied by the applicable adjustment factor
- **General Contractor Unit Pricing:** The unit price (per square foot) estimated by the VLS construction consultant
- **General Contractor Price:** The price that would have been reasonably charged by a general contractor based on the VLS construction consultant's experience

Table 16: Long Beach Library Carpet – General Contractor Estimated Cost

VLS Item Number	Description	Quantity	CTC Unit Price (per SF)	Total (Quantity x Price)	Total x JOC Factor 0.5600	General Contractor Unit Pricing	General Contractor Price
1	24x24 carpet Tiles (square feet price) including floor preparation	18,582	$ 4.55	$ 84,568.54	$ 47,358.38	$ 4.19	$ 77,877.16
2	Carpet base	3,250	2.17	7,052.50	3,949.40	1.75	5,684.25
3	Demolition of Existing carpet	18,582	0.37	6,895.78	3,861.64	0.28	5,110.05
4	Demolition of Base	3,250	0.69	2,242.50	1,255.80	Included	Included
5	Additional moving of furniture. Moving of furniture is built into the CTC line item price. Added price for GC	50	53.41	Built into the CTC line item price	Built into the CTC line item price	72.12	3,605.80
6	Four Yard Dumpster	5	552.00	2,760.00	1,545,60	660.00	3,300.00
	Total Cost of Project			**$ 103,519.32**	**$ 57,970.82**		**$ 95,577.26**

Quantify the Effect of Using NPP Items in Proposal

The original proposal did not include any NPP items. As mentioned previously, the supplemental proposal was not analyzed.

Summary of Phase 2: JOC Project Review – Long Beach Library Carpet

It appears that New Creation Builders included in its proposal unnecessary items, items that were not accurate based on the actual work performed, and quantities exceeding what was required for this project. The price the City paid for this project was significantly more than it may have been contractually obligated to pay, which should have been the CTC pricing reduced by the adjustment factor bid by the JOC contractor.

Based on the analysis performed by the VLS construction consultant, the total project would have cost the City approximately $57,971 if the City had enforced the use of the CTC and adjustment factor per the contract with New Creation Builders. The total cost to the City was $96,179.76; therefore, it appears that the City paid $38,209 (or 66%)[50]

[50] VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed. The calculation for the difference is as follows: $96,180 - $57,971 = $38,209. The percentage difference is as follows: $38,209 / $57,971 = 0.66.

more than may have been contractually required.[51] If the City had gone out for a public bid, the project could have cost the City approximately $95,577, which is $603 (0.6%) less than what the City paid for this project.[52]

[51] The total cost for this project does not include one supplement to the original proposal as the supplement was difficult to test and an accurate pricing could not be determined due to similar projects occurring at the same locations during the same time period. Likewise, the estimate of the VLS construction consultant did not include items from the supplemental proposal and included items only from the original proposal.

[52] The calculation for the difference is as follows: $96,180 – $95,577 = $603. The calculation for the percentage difference is as follows: $603 / $95,577 = .006.

IX. Phase 2: JOC Project Review – El Dorado Park Restroom Rehabilitation

The El Dorado Park Restroom Rehabilitation project was selected for testing. This project was for the rehabilitation of Public Restroom #41 at El Dorado Park West in Long Beach, CA. The project number was 15J0046. The contract was awarded to New Creation Builders, who bid an adjustment factor of 0.56. The total project cost paid by the City was $51,962.10, including the original proposal and supplements.[53] The project contained two modifications (supplements) to the original scope. The original project manager was involved in the procurement process and for the majority of the project. Towards the end of the project, a different project manager took over for this project. The Parks Supervisor also provided relevant information and was knowledgeable about the restroom remodel.

Scope of Work Performed

In order to perform this review VLS used the proposal from the JOC contractor with the detailed scope of work dated 8/11/14 with a total of $43,955.39 quoted. There were two supplemental additions to the project: supplement 1 dated 12/15/14 for $5,806.71 and supplement 2 dated 12/23/15 for $2,200.[54] After review of the documents related to this project, the VLS construction consultant toured the site.

The scope of the original proposal included the following:

- Remove and replace signs
- Remove masonry wall at entry way to accommodate ADA requirements
- Remove existing urinals, flushing mechanisms and tile walls and install two wall-mounted urinals including accessories for the men's restroom only
- Clean, regrout existing tilework, remove and replace broken wall tiles
- Remove and install new toilet partitions
- Supply and install all new restroom accessories
- Remove and replace hand dryer
- Paint walls above tiles and restain ceiling
- Prepare and install Epoxy floor
- Replace lights with three vandal-proof lights
- Demolish existing slab, pour new concrete to meet ADA requirements for toilet
- Repair bottom of doorframes: grind, patch, and repaint

[53] VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed.

[54] VLS was provided copies of the signed originals for the detailed scope of work dated 8/11/14 and supplement 1 dated 12/15/15. For supplement 2, VLS was provided a copy of a print out of the detailed scope of work printed on 12/23/15 from the eGordian system, which was not the date of supplement 2.

- Paint walls, fascia, doors, window frames, wood rafters, and ceiling; replace damaged wood rafters at two (2) locations with treated wood and paint; paint all masonry walls and columns
- Remove and replace roof tiles to match existing, replace existing wood siding at roof area with cement board sidings
- Clean and repaint existing exterior floor
- Remove and replace all existing metal doors within the perimeter of the building; door frames to be retained and retrofitted to swing out as needed; provide vandal proof metal plates
- Remove and install new vandal proof exterior light fixtures

The scope of the first supplement included the following:

- Provide and install new faucets, flushometers, toilet seats at the request of PRM
- Install additional reinforcement for the urinal partitions
- Provide 1 ADA portable restroom facility and 4 regular portable restroom facilities and wash stations for public use during the construction phase

The scope of the second supplement included the following:

- Remove and replace four skylights at El Dorado Restroom #41
- Includes repair of curbs, flashings and waterproofing works

Assessment of JOC Proposal

The VLS construction consultant reviewed the contractor's price proposal submitted by New Creation Builders. Table 17 includes the line item descriptions, quantities, and CTC unit prices listed in the proposal for the El Dorado Park Restroom Rehabilitation project. The far right column ("VLS Notes") references the VLS assessment of each line item, which is included below the table. Items without a VLS note indicate proposal line items that appear to be properly included in the appropriate quantities. Table 18 and Table 19 contain the details of each supplement.

Table 17: El Dorado Park Restroom Rehabilitation - VLS Assessment of JOC Contractor Proposal

Item Number	Description[55]	Quantity	CTC Unit Price	Total x JOC Factor 0.56	VLS Notes
1	4" Width, 1/4" Height, Aluminum Saddle Threshold (Pemko 270A) LF	8	$ 22.08	$ 98.92	(a)
2	Regrout Wall Tile Including Removal Of Loose Grout SF	800	5.84	2,616.32	(b)

[55] Line item descriptions are included as they appeared in the JOC contractor proposal.

Item Number	Description[55]	Quantity	CTC Unit Price	Total x JOC Factor 0.56	VLS Notes
3	Less than 8" x 8" Mounted Wall Tile Includes glazed porcelain, unglazed porcelain and glazed ceramic tiles. Tiles mounted from back, side, or front in 12" x 12", 12" x 24", or similar sized sheets. SF	800	8.48	3,799.04	(c)
4	Remove Glue From Concrete Floor For removal of glue from VCT or carpet placement. Not to be used in conjunction with demolition tasks associated with floor tile installation. SF	1800	0.72	725.76	(d)
5	Epoxy Marble Chip Floor, Topping 3/16" Thick, Heavy Duty Epoxy SF	900	10.01	5,045.04	(e)
6	Epoxy Flooring Trowel Applied Mortar Compound, 3/16" Heavy Duty (6000 - 7500 PSI) SF	1400	8.66	6,789.44	
7	Paint Exterior Drywall/Plaster, 1 Coat Primer, Brush Work SF	1400	0.49	384.16	(f)
8	Paint Exterior Drywall/Plaster, 2 Coats Paint, Brush Work SF	2400	0.96	1,290.24	(f)
9	Paint Exterior Galvanized Surfaces, One Coat Primer, Brush Work SF	1200	0.57	383.04	(g)
10	Paint Exterior Galvanized Surfaces, One Coat Primer, Brush Work SF	600	0.57	191.52	(g)
11	Paint Exterior Galvanized Surfaces, Two Coats Paint, Brush Work SF	600	1.15	386.40	(g)
12	Paint Exterior Stucco Surfaces One Coat Primer, Brush Work SF	870	0.81	394.63	(h)
13	Paint Exterior Stucco Surfaces, Two Coats Paint, Brush Work SF	870	1.66	808.75	(h)
14	Paint Exterior Stucco Surfaces, Two Coats Paint, Brush/Roller Work SF	1600	1.28	1,146.88	(h)
15	Paint Exterior Wood Rough (Shingles, Shakes Or Rough Sawn) Siding, One Coat Primer, Brush Work SF	250	0.91	127.40	
16	Paint Exterior Wood Smooth Ceiling, One Coat Primer, Brush Work SF	250	0.66	92.40	
17	Paint Window Guards, 1 Coat Primer, Brush/Roller Work SF	50	0.90	25.20	(i)
18	Paint Wood Window Frame, 1 Coat Primer, Brush/Roller Work LF	600	0.84	282.24	(j)
19	Paint Wood Window Frame, 1 Coat Paint, Brush/Roller Work LF	300	0.84	141.12	(j)
20	Paint Fascia Board, 1 Coat Paint, Brush/Roller Work LF	340	0.47	89.49	
21	Paint Interior Plaster/Drywall, 2 Coats Paint, Brush SF	900	1.04	524.16	(k)
22	Paint Interior Wood Surface, 2 Coats Paint, Brush SF	680	1.22	464.58	(l)
23	Paint Interior Drywall/Plaster Ceiling, 1 Coat Primer, Brush Work SF	680	0.59	224.67	
24	Paint Interior Concrete Floors And Decks, One Coat Primer, Brush Work SF	850	0.45	214.20	(m)
25	Paint Interior Concrete Floors And Decks, One Coat Paint, Brush Work SF	680	0.50	190.40	(m)
26	Paint Interior Metal Frame And Trim, 2 Coats Paint, Brush/Roller Work LF	40	1.47	32.93	
27	Paint Interior Door, Both Faces, 1 Coat Primer, Brush/Roller Work EA	16	52.03	466.19	
28	Calcimine Removal/Washing Concrete Or Masonry SF	400	0.28	62.72	
29	Chemical Clean, Brush And Wash Concrete Or Masonry SF	650	0.44	160.16	
30	Pressure Wash Concrete Or Masonry, Up To 5,000 PSI SF	900	0.35	176.40	
31	Hand Wash, Minor Repair And Light Sanding Drywall Surfaces SF	900	0.37	186.48	
32	Up To 25 SI, Acrylic, Surface Mount, Indoor/Outdoor Signs With Braille EA	4	28.09	62.92	
33	Surface Mounted, Automatic Sensor, Cast Aluminum Cover Hand Dryer (Bobrick AirPro B-709). EA	2	538.12	602.69	
34	1" Sink Rubber Stopper Replacement. EA	8	6.38	28.58	
35	1/2" Automatic Trap Primer, Up To Two Floor Drains (PPP PR-500). EA	3	79.70	133.90	(n)

Item Number	Description[55]	Quantity	CTC Unit Price	Total x JOC Factor 0.56	VLS Notes
36	Floor Mounted Water Closet, Single Fixture Rough-In, Cast Iron Waste And Vent Pipe Includes cast iron waste and vent pipe and copper domestic supply. Excludes fixture and flush valve. EA	8	591.62	2,650.46	(o)
37	Wall Mounted Service Sink, Single Fixture Rough-In, Cast Iron Waste And Vent Pipe Includes cast iron waste and vent pipe and copper domestic supply. Excludes fixture, carrier, and faucet. EA	8	561.36	2,514.89	(p)
38	5" x 5" Floor Drain With 4" Bottom Outlet, Nikaloy Top. EA	4	341.85	765.74	(q)
39	Handicap Accessible, Flush Valve Type, Siphon Jet Water Closet, Wall Hung, Elongated, (American Standard 2294.011). EA	6	571.52	1,920.31	(r)
40	Exposed Manual Water Closet Flush Valve (Sloan Regal-110 Or111). EA	9	182.40	919.30	
41	18" x 15" Wall Mounted Lavatory, Stainless Steel (Acorn 1950-1). EA	8	1,182.07	5,295.67	(s)
42	4" Centerset Lavatory Faucet With Chrome Lever Handle, Delta 501-WF. EA	6	99.75	335.16	
43	2 T8 Lamps, 2' x 2', Vandal Resistant, Lensed, Lay-In/Troffer, Recessed Fluorescent Fixture. EA	8	221.61	992.81	(t)
44	Wire Guard for 2" x 2' Fixture. EA	8	47.34	212.08	(u)
	Total Cost of Project			**$43,955.40**	

a) Item 1 - Thresholds are listed, but there did not appear to be any new thresholds installed.
b) Item 2 - The quantity provided in this proposal is over double what would be required based on the square feet of flooring in the restrooms. The VLS construction consultant estimated a total of 304 square feet was needed rather than 800 square feet. This line item is overstated by 496 square feet.
c) Item 3 - The quantity provided in this proposal is over double what would be required based on the square feet of flooring in the restrooms. Not all tile was replaced. The VLS construction consultant estimated approximately 60 SF was replaced.
d) Item 4 - The VLS construction consultant was unable to determine the purpose of this line item. Pressure washing is included in item 30.
e) Item 5 - The quantity provided in this proposal is over double what would be required based on the square feet of flooring in the restrooms.
f) Items 7 and 8 - These line items appear incorrect. VLS did not see any exterior dry wall or plaster, only wood and brick. For this reason, the description does not appear to match the conditions. The correct item appears to be in the CTC and should have been used in place of these line items.
g) Items 9, 10, and 11 - These line items appear incorrect. VLS did not see any exterior galvanized surfaces. For this reason, the description does not appear to match the conditions. Additionally, the quantities do not appear to match the conditions. The correct item appears to be in the CTC and should have been used in place of these line items.
h) Items 12, 13, and 14 - These line items appear incorrect. VLS did not see any exterior stucco surfaces. For this reason, the description does not appear to match the conditions. Additionally, the quantities do not appear to match the conditions. The

correct item appears to be in the CTC and should have been used in place of these line items.

i) Item 17 - This line appears to be incorrect. The VLS construction consultant did not see any window guards, thus no window guards would have been painted.

j) Items 18 and 19 - These line items appear incorrect. The VLS construction consultant did not see any window frames, thus no window frames would have been painted.

k) Item 21 - The quantity of 900 for this line item appears overstated. Only a quantity of 600 was necessary, thus, the quantity for this item was overstated by 300.

l) Item 22 - VLS did not see any interior wood locations other than the ceiling. The ceiling paint was addressed in a separate line item; therefore, this line item should not have been included.

m) Items 24 and 25 - Interior floors and decks were Epoxy coated, not painted, thus this line item should not have been included.

n) Item 35 - No automatic trap primers were installed, thus this line item should not have been included.

o) Item 36 – Per discussion with the project manager, only 2 ADA toilets were replaced, thus this item appears to be overstated by 6 toilets.

p) Item 37 - Per discussion with the project manager, no new sinks were installed, thus this item should have not been included.

q) Item 38 - No new floor drains were installed, thus this item should not have been included.

r) Item 39 - The quantity for this line item appears incorrect. Only 2 ADA toilet compartments were necessary.

s) Item 41 - Per discussion with the project manager, no new sinks were installed, thus this line item should not have been included.

t) Item 43 - No lay-in recessed fluorescent fixtures were installed, thus this line item was included in error as a different type of fixture was actually installed.

u) Item 44 - No fixture guards were installed, thus this line item should not have been included.

Table 18: Supplement 1 El Dorado Park Restroom Rehabilitation – VLS Assessment

Item Number	Description[56]	Quantity	CTC Unit Price	Total x JOC Factor 0.56	VLS Notes
1	Laborer Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC. Hours	24	$ 64.04	$ 860.70	(a)
2	Plumber Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC. Hours	24	71.69	963.51	(b)
3	Portable Toilets, Chemical.	16	109.25	978.88	(c)
4	ADA Portable Toilets, Chemical	2	127.45	142.74	
5	30" x 42" x 1/2", Wall Hung, Solid Color Reinforced Composite, Toilet Partition Urinal Screen. EA	3	297.41	499.65	
6	Extruded Aluminum Head rails For Toilet Partitions And Urinal Screens. LF	177	7.57	750.34	

[56] Line item descriptions are included as they appeared in the JOC contractor proposal.

Item Number	Description[56]	Quantity	CTC Unit Price	Total x JOC Factor 0.56	VLS Notes
7	Partition, Portable, Divided Panel, Freestanding, Fiber Core, Fabric Face Curved, 3'-0" Long, 5' High. LF	6	214.64	721.19	
8	Elongated Toilet Seat With Lid Replacement. EA	5	80.75	226.10	
9	Chrome Single Acrylic Handle Bath Faucet (Delta Model 502WF). EA	5	99.75	279.30	
10	Exposed Manual Urinal Flush Valve, 1-1/4" Top Spud (Sloan Regal 180-1.0). EA	5	137.25	384.30	(d)
	Total Cost of Project			**$ 5,806.71**	

a) Item 1 - The supplement does not state what labor is intended. All tasks appear to be in the CTC. The description of "laborer tasks" is only given a number of hours instead of listing a specific task. This makes it difficult to assess the appropriateness of this line item.
b) Item 2 - The supplement does not state what labor is intended. All tasks appear to be in the CTC. The description of "plumber tasks" is only given a number of hours instead of listing a specific task. This makes it difficult to assess the appropriateness of this line item.
c) Item 3 - The quantity appears to be double. Per the schedule reviewed, there was only a two-month need for toilets; therefore, four toilets for two months would be a total quantity of 8. This line item appears to be overstated by 8 toilets.
d) Item 10 - The quantity appears to be wrong as only two urinals were installed. This line item appears to be overstated by three urinals.

Table 19: Supplement 2 El Dorado Park Restroom Rehabilitation – VLS Assessment

Item Number	Description[57]	Quantity	Total x JOC Factor 0.56	VLS Notes
1	Replace four (4) units of skylights. NPP task.	1	$ 2,200.00	(a)
	Total Cost of Project		**$ 2,200.00**	

a) Item 1 - Supplement 2 should not have used NPP tasks as these tasks are located in the CTC.

As detailed above, it appears that New Creation Builders' proposals included items that were unnecessary, incorrectly quantified, and not accurate to what was installed. This is consistent with the concerns identified from the interviews conducted during Phase 1.

Costing Proposal – Actual Price, CTC Price, General Contractor Price

In Table 20, Row 1 provides the actual price the City paid.[58] Row 2 provides an estimated price if the CTC had been properly used with no adjustment factor applied.

[57] Line item descriptions are included as they appeared in the JOC contractor proposal.

[58] VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed.

Row 3 provides an estimated price if the CTC had been properly used and the applicable adjustment factor applied. Row 4 provides the estimated price as if a general contractor had bid the work at market rates.

Table 20: El Dorado Park Restroom Rehabilitation Project – Price Comparison

Row Number	Description	Amount
1	Actual price paid for project ($43,955.39 original proposal plus $5,806.71 for supplement 1 and $2,200.00 for supplement 2)	$ 51,962
2	Estimate using CTC and no adjustment factor applied	$ 50,821
3	Estimate using CTC and adjustment factor of 0.56	$ 28,460
4	Estimate of general contractor bid	$ 50,860

The VLS construction consultant's assessment indicates that the CTC includes all the items that were necessary to complete this project and the pricing appears to accurately reflect the Long Beach area prices and wages. If the JOC contractor had used the CTC, the adjustment factor of 0.56, and the proposal included only needed items in appropriate quantities, the City would have paid approximately $28,460 (Table 20, Row 3). The total cost to the City was $51,962, which is $23,502 (or 83%) more than what the City may have been contractually obligated to pay. Had the City enforced the use of the CTC and adjustment factor, the City would have paid significantly less for this work.[59] However, it is the opinion of the VLS construction consultant that a contractor could not have completed this project for $28,460, adequately covered the cost of the project, and made a reasonable profit. Had the contractor bid a reasonable adjustment factor of 0.9 to 1.0, the accurate use of the CTC would have allowed the contractor to recuperate its cost, cover its overhead, and make a reasonable profit. As shown in Table 20, Row 4, the estimate of a general contract bid is approximately $50,860.

It appears that the proposal submitted by New Creation Builders for this project does not accurately reflect the scope of work or the work completed. The proposal included items not needed for the project and quantities in excess of need in order to increase the proposal amount to a price that was sufficient to cover New Creation Builders' cost to complete the project.

Table 21 includes the line item descriptions, quantities, and costs used to arrive at the amounts included in Table 20, (Rows 2, 3, and 4).[60] The costs and estimates included in

[59] VLS did not audit or verify the actual payments made by the City to the JOC contractor for this project. The cost to the City is based upon the JOC proposal reviewed. The calculation for the difference is as follows: $51,962 – $28,460 = $23,502. The percentage difference is as follows: $23,502 / $28,460 = 0.826.

[60] Items listed as NPP are those for which the CTC did not provide details. For these items, the VLS construction consultant estimated a price based on current pricing conditions for this type of work. Because these NPP items were not located in the CTC catalog, no adjustment factor was applied. Out of 88 line items needed for this project to be completed; only 1 item was an NPP. The percentage of NPP pricing for this project is 2% (one NPP item of $600 divided by total cost of $28,460).

this table incorporate costs related to NPP items.[61] The line items and quantities included in Table 21 are those that the VLS construction consultant estimates were necessary to complete the project. The table includes the following information:

- **VLS Item Number:** Item number assigned by VLS for reference purposes
- **Description:** Description of the construction task
- **Quantity:** Quantity needed for the construction task described
- **CTC Unit Price:** The price listed in the CTC for the construction task described
- **Total (Quantity x Price):** A calculation of the quantity multiplied by the CTC unit price listed for the described construction task
- **Total x JOC Factor 0.5600:** The total amount of the construction task described multiplied by the applicable adjustment factor
- **General Contractor Unit Price**: The unit price estimated by the VLS construction consultant.
- **General Contractor Price:** The price that would have been reasonably charged by a general contractor based on the VLS construction consultant's experience

Table 21: El Dorado Park Restroom Rehabilitation – General Contractor Estimated Price

VLS Item Number	Description	Quantity	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5600	General Contractor Unit Price	General Contractor Price
1	Demolition of brick wall (SF)	64	$ 5.25	$ 336.00	$ 188.16	$ 7.59	$ 485.76
2	Portable restrooms quantity of 4 (per month) supplement 1	8	109.25	874.00	489.44	125.00	1,000.00
3	Portable ADA restroom. Quantity of 1 (per month) supplement 1	2	127.45	254.90	142.74	135.00	270.00
4	Demolition and reinstall of existing toilets	4	308.30	1,233.20	690.59	300.00	1,200.00
5	Demolition of existing ADA toilets	2	69.26	138.52	77.57	169.62	339.24
6	20 yard Dumpster (7cy concrete)	1	417.50	417.50	233.80	350.00	350.00
7	Concrete dump fees CY	2	13.22	26.44	14.81	53.62	107.24
8	Demolition of exterior doors	8	37.04	296.32	165.94	89.49	715.92
9	Demolition of concrete (SF)	28	2.12	59.36	33.24	1.85	51.80
10	ADA toilet rough. Soil pipe assembly LF	2	35.87	71.74	40.17	187.08	374.16
11	Cut and prepare copper pipe ADA water closet	6	7.23	43.38	24.29		Included in line item 16

[61] In addition, the costs and estimates specific to only NPP items are addressed independently in Table 22.

VLS Item Number	Description	Quantity	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5600	General Contractor Unit Price	General Contractor Price
12	1/2 CU tubing assembly LF	4	14.76	59.04	33.06	78.54	314.16
13	1/2 cu pipe thread Union	2	37.00	74.00	41.44		Included in line item 16
14	Cut repair cast pipe	10	7.96	79.60	44.58		Included in line item 16
15	Water closet fixture carriers	2	486.83	973.66	545.25		Included in line item 16
16	ADA toilet install	2	415.81	831.62	465.71	945.17	1,890.34
17	toilet flush valves	6	188.64	1,131.84	633.83	225.00	1,350.00
18	Urinal demo	3	71.26	213.78	119.72	184.50	553.50
19	Urinal flush valves supplement 1	2	137.25	274.50	153.72	225.00	450.00
20	Urinal carrier	2	277.48	554.96	310.78		Included in line item 21
21	Urinal Installation	2	461.46	922.92	516.84	1,067.99	2,135.98
22	Cut repair copper pipe	20	7.81	156.20	87.47	7.50	150.00
23	1/2" cu tubing assembly LF (for urinals	10	14.76	147.60	82.66	78.54	785.40
24	Demolition of wood framing	32	0.52	16.64	9.32	13.03	416.79
25	Frame wall for new urinals location	32	1.08	34.56	19.35	3.85	123.20
26	Demolition of wall tile SF	60	1.58	94.80	53.09	2.00	120.00
27	New porcelain wall tile SF	60	10.41	624.60	349.78	16.57	994.20
28	Thin set for wall tile SF	60	1.08	64.80	36.29		Included in line item 27
29	Re- grout existing tile	304	5.84	1,775.36	994.20	2.21	671.84
30	Demolition of moisture drywall	32	0.33	10.56	5.91	1.10	35.20
31	Add new moisture drywall	32	0.91	29.12	16.31	2.33	74.56
32	Demolition of cementitious backer urinals	32	0.32	10.24	5.73	1.10	35.20
33	Installation of cementitous backer at new urinals for tile SF	32	2.38	76.16	42.65	2.75	88.00
34	Demolition of existing TP dispensers	6	14.48	86.88	48.65	15.50	93.00
35	New faucets in existing sinks	4	157.72	630.88	353.29	250.00	1,000.00
36	New TP Dispensers jumbo two roll	6	82.30	493.80	276.53	83.76	502.56
37	Demo ADA compartment handrails 36"	4	12.87	51.48	28.83	35.00	140.00
38	New ADA grab bar 48"	2	70.50	141.00	78.96	118.26	236.52
39	New ADA compartment grab bars 36"	2	65.99	131.98	73.91	98.55	197.10

VLS Item Number	Description	Quantity	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5600	General Contractor Unit Price	General Contractor Price
40	Demo and reinstall roof tiles SF	6	214.32	1,285.92	720.12	50.00	300.00
41	Re install roof tiles SF	6	664.78	3,988.68	2,233.66	450.00	2,700.00
42	Demo existing roof joist [62]	50	1.10	55.00	30.80	2.50	125.00
43	Add new roof joist[62]	50	3.46	173.00	96.88	15.00	750.00
44	Add new exterior doors	8	370.24	2,961.92	1,658.68	366.61	2,932.88
45	Door hinges	8	108.80	870.40	487.42	68.58	548.64
46	Door dead bolt lock	8	146.00	1,168.00	654.08	250.48	2,003.84
47	Door weather strip	8	10.67	85.36	47.80	49.55	396.40
48	Metal vandal proof strips at exterior doors (**NPP**)[63]	8	75.00	600.00	336.00	75.00	600.00
49	Door Kick plates	8	37.02	296.16	165.85	121.85	974.80
50	New ADA men's/ women's door signage	2	28.09	56.18	31.46	22.25	44.50
51	Install Vandal-resistant, surface mount, exterior area light	8	149.46	1,195.68	669.58	163.50	1,308.00
52	Demo existing ceiling mount fixtures	8	53.07	424.56	237.75	39.25	314.00
53	Demo existing ADA corner toilet partitions	2	104.65	209.30	117.21	150.00	300.00
54	New corner Ada partitions	2	696.00	1,392.00	779.52	831.61	1,663.22
55	Demolition of partitions	6	20.93	125.58	70.32	50.00	300.00
56	New partitions	6	141.87	851.22	476.68	132.00	792.00
57	New partition doors	4	214.69	858.76	480.91	225.00	900.00
58	Demolition of partition doors	4	13.84	55.36	31.00	50.00	200.00
59	New urinal screens	1	278.12	278.12	155.75	297.65	297.65
60	New concrete patch back cy	1	134.60	134.60	75.38	176.00	176.00
61	Concrete prep for paint SY	70.37	9.40	661.48	370.43	5.20	365.92
62	Demolition of siding LF	84	1.02	85.68	47.98	1.50	126.00
63	New siding above roof line LF	84	3.27	274.68	153.82	3.50	Included in line item 65
64	Prime interior drywall/plaster	600	0.57	342.00	191.52		Included in line item 65
65	Paint interior plaster/drywall 2 coats	600	1.10	660.00	369.60	1.23	738.00

[62] This is a rough estimate only. The VLS construction consultant could not determine the scope and did not know what was involved in restoring roofing.

[63] The percentage of NPP pricing for this project is 2% (one NPP item of $600 divided by total of $27,552).

VLS Item Number	Description	Quantity	CTC Unit Price	Total (Quantity x Price)	Total x JOC Factor 0.5600	General Contractor Unit Price	General Contractor Price
66	Prime interior brick	700	0.65	455.00	254.80		Included in line item 67
67	Paint interior brick	700	1.25	875.00	490.00	1.31	918.31
68	Paint exterior brick oil base	2012	0.97	1,951.64	1,092.92	0.90	1,810.80
69	Prime exterior wood siding	262	0.96	251.52	140.85		Included in line item 69
70	Paint exterior wood siding 2 coats	262	1.69	442.78	247.96	1.30	340.60
71	Prime door frames lf	136	0.68	92.48	51.79	0.45	61.20
72	Paint door frames lf	136	1.47	199.92	111.96	1.50	204.00
73	Prime exterior doors each	8	48.33	386.64	216.52	58.10	464.80
74	Paint exterior doors both side (each)	8	86.36	690.88	386.89	58.10	464.80
75	Prime exterior wood ceiling eaves SF	1500	0.54	810.00	453.60		Included in line item 76
76	Paint exterior wood eaves	1500	0.93	1,395.00	781.20	1.30	1,950.00
77	Prime exterior metal roll up door SF	140	1.41	197.40	110.54	1.35	189.00
78	Paint exterior metal roll up door 2 coats SF	140	3.03	424.20	237.55	2.78	389.20
79	Pressure wash concrete	1900	0.35	665.00	372.40	0.35	665.00
80	Paint exterior concrete floor	1500	0.84	1,260.00	705.60	0.47	705.00
81	Epoxy marble chip interior RR floor	400	9.48	3,792.00	2,123.52	5.92	2,368.00
82	Paint exterior columns QTY 9 (SF)	792	0.92	728.64	408.04	0.90	712.80
83	Wood stain interior ceiling	400	0.76	304.00	170.24	0.42	168.00
84	Hand dryer touch button world dryer	2	581.56	1,163.12	651.35	575.00	1,150.00
85	Demolition of hand dryer	2	80.47	160.94	90.13	45.00	90.00
86	Demolition of existing skylight	4	80.51	322.04	180.34	75.00	300.00
87	Add new skylight	4	321.77	1,287.08	720.76	337.47	1,349.88
88	Re roof at skylight[64]	2	215.86	431.72	241.76	225.00	450.00
	Total Cost of Project			**$ 50,820.58**	**$ 28,459.52**		**$ 50,859.91**

Quantify the Effect of Using NPP Items in Proposal

The original proposal and supplement 1 did not include NPP items; however, supplement 2 included an NPP item. By costing this supplement as an NPP, the JOC contractor charged the City for 100% of the cost to the contractor plus a 10% mark-up to cover overhead and profit. NPP items should be included only when the construction

[64] This is a rough estimate only. The VLS construction consultant could not fully determine the scope and did not know what was involved in restoring the roofing.

activity or needed items are not included in the CTC. In addition, the JOC contractor is supposed to obtain three quotes before selecting a vendor or subcontractor. Per discussion with the project managers, there is no verification process to ensure that three bids were obtained by the JOC contractor when including NPP items in the proposal.[65] By using NPP items instead of using the CTC to price a construction task (when the construction activities are included in the CTC) the JOC contractors circumvent the JOC program requirements. All items that were part of supplement 2 could have been priced using the CTC as all items necessary for this project are listed in the CTC. For this reason, it appears that it was not necessary to include an NPP item in the supplement 2 proposal.

The first row of Table 22 (under the column headings) provides the line item included in the proposal for supplement 2 as submitted by New Creation Builders. The subsequent rows provide the line items that should have been used from the CTC to perform the work listed in the supplement 2 proposal. A unit price as shown in the CTC is listed for these line items in the "CTC Unit Price" column. The "CTC Price (Quantity x CTC Unit Price)" column provides the extended value of the quantity multiplied by the CTC unit price. The "Total (CTC Price x JOC Factor 0.56)" column provides the total CTC price multiplied by the adjustment factor. The "General Contractor Price" column provides an estimate of the cost that would have been reasonably charged by a general contractor based on the VLS construction consultant's experience and bids requested of vendors with whom the VLS construction consultant commonly works. This table includes the costs and estimates specific only to NPP items, while the costs and estimates related to the entire project is displayed in Table 21.

Table 22: El Dorado Park Restroom Rehabilitation – Effect of Using NPP

Description	Quantity	JOC NPP Price	CTC Unit Price	CTC Price (Quantity x CTC Unit Price)	Total (CTC Price x JOC Factor 0.56)	General Contractor Price with Sub Contract Mark Up of 10%	Difference (JOC NPP Price - General Contractor Price)
Replace four (4) Unit Skylight[66]	1	$2,200.00	$	$	$	$	
Demolition of existing skylight	4		80.51	322.04	180.34	300.00	
Add new skylight	4		321.77	1,287.08	720.76	1,349.88	
Re roof at skylight	2		215.86	431.72	241.76	450.00	
Total Cost of Non-Pre Priced Items		$2,200.00		$2,040.84	$1,142.86	$ 2,099.88	$ 100.12

[65] Additionally, there is no evidence that three bids were obtained for these NPP items as the City was not able to provide the bids to the VLS construction consultant for review.

[66] Items listed as NPP are not priced using the CTC, thus no CTC unit price details and totals are included in this row.

Taking into consideration what a general contractor would have charged for this scope of work, it appears that the price the City paid was approximately $100 more than what it could have potentially paid a general contractor for this work.[67] The scope of work specified in the NPP from supplement 2 was $2,200. The CTC provides for these specific items at a cost of $2,040. When using the adjustment factor of 0.56, the total cost of this work should have been approximately $1,143 when using the CTC.

Summary of Phase 2: JOC Project Review – El Dorado Park Restroom Rehabilitation

It appears that New Creation Builders included in its proposal and supplements unnecessary items, items that were not accurate based on what was installed, and quantities exceeding what was required for this project. In addition, NPP items were included when the CTC could have been used. The price the City paid for this project was significantly more than it may have been contractually obligated to pay, which should have been the CTC pricing reduced by the adjustment factor bid by the JOC contractor.

Based on the analysis performed by the VLS construction consultant, including the items listed in the two supplements, the project would have cost the City approximately $28,459 if the City had enforced the use of the CTC and adjustment factor per the contract with New Creation Builders. The total cost for this project to the City was $51,962; therefore, it appears that the City paid $23,503 (or 83%) more than may have been contractually required.[68] If the City had gone out for a public bid, the project could have cost the City approximately $50,860, which is $1,102 (2.1%) less than what the city paid for this project.[69]

[67] The NPP item of $2,200 less what a general contractor would have charged, $2,100, equals a difference of $100.

[68] The calculation for the difference is as follows: $51,962 – $28,459.52 = $23,502.58. The percentage difference is as follows: $23,502.58 / $28,459.52 = 0.826.

[69] The calculation for the difference is as follows: $51,952 - $50,860 = $1,092; the calculation for the percentage difference is calculated as follows: $1,092 / $50,81, = 0.021.

X. Recommendations

The objective of a JOC program is to have small, simple, and commonly encountered construction projects performed easily and quickly. The JOC program is particularly well suited for (1) repetitive jobs and (2) situations in which owners know that many small tasks will arise but the timing, type of work, and quantity of work are unknown at the time the contract is signed with the vendors. There are several advantages of using a JOC program; however, the program needs to be appropriately established and executed. Based on the interviews conducted and testing of the four projects selected, it became evident that the JOC program for the City is not functioning appropriately.

The VLS construction consultant believes that the CTC appropriately reflects the wages and prices of the Long Beach area and that the low adjustment factors bid by the construction companies allow them to attain the contract with the City. However, once the contract is secured, if they were to use the adjustment factors bid, and only include items necessary to complete the work, the amount of the contract proposal would not cover the cost to the contractor of performing the work. For this reason, it appears that the JOC contractors include additional items in excess of the needed scope or use NPP items in order to cover the cost and make a reasonable profit. This is not the way that a JOC program is intended to function. By securing bids at a fraction of what it would actually cost to complete a construction project and then including additional items in excess of the needed scope, or by using NPP items, the purpose of the JOC program is defeated and there is a possibility that the public bidding code is being circumvented under the pretense of a JOC program. Additionally, the City is at risk of overpaying for the work performed as there is no mechanism in place to ensure that it is receiving a fair price for the work performed. The Gordian Group also stated that the JOC program is not intended to be used for “pass through” projects. An example of the use of a “pass through” project is the Long Beach Library Carpet project where the cost to perform the work was negotiated with a company that then subcontracted under a JOC contractor to perform the work.

(1) Consider Selecting JOC Contractors Using a Qualification Based Approach and Reasonable Adjustment Factors

Moving forward, select JOC contractors using a qualification based selection process as well as bidding for the lowest, yet reasonable, adjustment factor. Evaluate all contractors using a set of pre-established criteria determined by the City (such as past performance, experience with JOC contracts, qualifications of key personnel, financial status, safety records and other criteria the City may deem necessary). It is important that a reasonable adjustment factor be used keeping in mind that the CTC accurately reflects prices and wages for the area.

(2) Provide Education and Training to Project Managers Responsible for the JOC Program

Provide JOC project managers with education and training related to the workings of a properly functioning JOC program. Identify educational institutions that offer certificate programs and provide a comprehensive overview of the JOC process. In these programs, students may discover how to set up, operate and manage a successful JOC program. They also may explore the responsibilities of those involved in the process, pricing considerations, and the selection process.

(3) Implement a Process that Ensures a Thorough Evaluation of Proposals

Implement a process that ensures each proposal submitted by a JOC contractor is thoroughly reviewed for accuracy based on the scope of work. Additionally, develop a process for ensuring that inaccurate proposals and proposals that do not use the CTC are not accepted. To ensure that the City is paying a fair price for work performed, it must enforce the use of the CTC and the adjustment factors bid by the JOC contractors and evaluate each proposal received by the JOC contractors to assess if all the line items listed are necessary for the completion of the project. In order to do this, the project managers need to be knowledgeable of construction conditions and proficient in the use of the CTC to identify the appropriate items and prices that should compose the proposal. If necessary, this evaluation can be performed by an outside party with more knowledge and expertise; however, this service would come at an additional cost to the City.

(4) Implement Review Process for Items Listed as NPP Items in JOC Contractors' Proposals

Establish a process for ensuring that the JOC contractor obtains three bids prior to submitting a proposal that includes NPP items. Attach the documentation for the three bids obtained by the JOC contractor to the JOC proposal when a proposal includes NPP items. This will help ensure that the City is receiving a competitive price for these services.

(5) Implement Management Oversight of the JOC Program

Establish management oversight for the work performed by JOC project managers. Conduct an internal review of the JOC proposals evaluated and approved by JOC project managers to minimize the risk that the approved JOC proposals may include unnecessary items, repetitive items, incorrect items, and quantities exceeding what was required.

(6) Seek Legal Counsel Opinion

Seek the opinion of legal counsel in relation to the areas of concern identified within the JOC program. It is possible that false claims may have been submitted by JOC contractors and allowed by the City as there is evidence that proposals submitted may have included items in excess of project need.

XI. List of Tables