

**Audit of the Orange County  
Convention Center Phase V  
Expansion  
Interim Report No 4 -  
General Conditions - Printing  
and Reproduction Expenses**

**Report by the  
Office of County Comptroller**

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**Report No. 329  
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May 6, 2003

Richard T. Crotty, County Chairman  
And  
Board of County Commissioners

We are in the process of conducting an audit of the Orange County Convention Center Phase V Expansion. This interim report is limited to a review of the project's expenses for printing and reproduction of drawings and related documents under the General Conditions provisions of the Construction Manager's Agreement with the County. Our audit was conducted in accordance with government auditing standards and included such tests as we considered necessary in the circumstances.

Responses to our Recommendations for Improvement were received from the Orange County Convention Center Construction Division and are incorporated herein.

We appreciate the cooperation of the Division during the course of the audit.

Martha O. Haynie, CPA  
County Comptroller

c: Ajit M. Lalchandani, County Administrator  
Tom Ackert, Director, Orange County Convention Center  
John Morris, Manager, Orange County Convention Center, Construction Division  
Johnny M. Richardson, Manager, Purchasing and Contracts Division

# INTRODUCTION

**Background**

On March 24, 2000, the County entered into an agreement, effective retroactively to January 1, 2000, with Huber, Hunt & Nichols/Clark/Construct Two for the Construction Manager (CM) At Risk services. Subsequently, this group changed its name to Hunt/Clark/Construct Two, Joint Venture. On November 22, 1999 the County also executed an agreement with O'Brien Kreitzberg (now URS) for Program Management Services (Program Manager). Components of the construction budget of \$520 million were delineated in Exhibit B of the CM Agreement. The Notice to Proceed was issued to the CM on March 31, 2000.

The Convention Center's Project Director is responsible for controlling the budget, contract administration, coordination of the various firms and related teams, day-to-day oversight, and providing reports to the Citizen's Oversight Committee (COC), County Chairman and Administration, and the Board of County Commissioners (Board). The Purchasing and Contracts Division, with input from the Project Director, is responsible for contract documentation and amendments.

The Program Manager, the Project Director, the CM, and other individuals provide monthly updates on construction activities and progress to the COC. Copies of these reports and minutes of these meetings are provided to the Board. Architectural and Engineering services are provided by Helman Hurley Charvat Peacock / Architects, Inc. (A&E).

Article 8.2 of the CM Agreement requires that "at the time the GMP is established, the parties shall also agree upon the General Conditions items to be provided by the Construction Manager as part of the Work." As a result, General Conditions items with a total budget of \$15.4 million within the Guaranteed Maximum Price (GMP) of \$490 million were agreed upon by the County and the CM in September 2000 when the GMP was finalized.

According to Article 8.1,

General Conditions items as used herein shall be deemed to mean provision of facilities or performance of Work by the Construction Manager for items which

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do not lend themselves readily to inclusion in one of the separate Trade Contracts. General Conditions items may include (but are not limited to) the following: watchmen; scaffolding; hoists; signs; safety barricades; water boys; cleaning; dirt chutes; cranes; ...temporary toilets; fencing; sidewalk bridge; first-aid station; trucking; temporary elevator; special equipment; winter protection; temporary heat, water, and electricity; temporary protective enclosures; field office...general maintenance; refuse disposal...legal fees....”

A line item budget of \$500,000 was established for printing and reproduction of drawings and related documents within the General Conditions’ budget of \$15.4 million. Pay requests and supporting documents for these items were reviewed by the Program Manager and Orange County Convention Center Construction Division (OCCCCD) prior to payment.

### **Scope, Objectives, and Methodology**

The overall audit scope includes a limited review of the Architectural and Engineering Services, the Program Management, and the Construction Manager (CM) At Risk agreements with emphasis on contract administration, compliance, and certain related matters. The audit period is July 1, 1999 to May 31, 2003. This interim report covers expenses paid by the County for the printing and reproduction of drawings and related documents under the General Conditions provision of the CM’s contract with the County.

The objectives of this audit segment were as follows:

- A) To verify whether payments made to the CM for the printing and reproduction of drawings and related documents were for expenses which were incurred, accurate, and billed in accordance with terms of the CM Agreement.
- B) To determine the propriety of increases in the GMP to pay for additional printing and reproduction expenses.

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To achieve our objective, we performed the following:

- Examined the OCCCCD's review, approval and payment process for printing and reproduction expenses;
- Examined a sample of payments to the CM for proper authorization, mathematical accuracy, reasonableness, adequacy of the supporting documents and compliance with the terms of the CM Agreement; and,
- Analyzed the printing and reproductions line item budget, change order transfer authorizations (COTA) and supporting documentation.

## Overall Evaluation

Based upon the work performed, payments made to the CM for printing and reproductions materially complied with the provisions of the CM Agreement. However, the County's internal controls over the review, approval, and payment of the expenditures were not adequate. In addition, it is our opinion that the increase of \$700,000 to the GMP of \$490 million to pay for additional printing and reproduction expenses was not adequately justified. Recommended improvements are noted herein.

# RECOMMENDATIONS FOR IMPROVEMENT



**1. A Credit Change Order Should Be Obtained from the CM to Restore Funds Used from the Owner's Contingency to Cover Additional Printing and Reproduction Expenses**

The County used \$700,000 from the \$30 million Owner's Contingency provision of the project's \$520 million construction budget to cover overruns in the CM's General Conditions line item budget of \$500,000<sup>1</sup> for printing and reproduction of drawings and related documents. This increased the GMP by an equal amount. As of August 31, 2002, the costs for printing and reproducing drawings and related documents had increased 155 percent to \$1,276,514. Printing and reproduction of drawings and related documents were included in the General Conditions items agreed upon by the County and CM at the time the GMP was established. The items agreed to were identified as line items in the CM's General Conditions section of the \$490 million construction GMP.

The agreement as to what constitutes General Conditions items is a requirement of Article 8.2 of the CM Agreement. This Article states that, "at the time the GMP is established, the parties shall also agree upon the General Conditions items to be provided by the Construction Manager as part of the Work." Since printing and reproduction of drawings was identified as a General Conditions item when the GMP was established, as required by Article 8.2, the \$700,000 should have come from the CM's GMP at risk amount of \$490 million. In addition, a CM contingency of \$15.5 million was included in the \$490 million GMP for situations such as this.

There was no written justification for utilizing the \$700,000 from the Owner's Contingency. The CM's request, dated

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<sup>1</sup> It should be noted that at the time the GMP was negotiated, the CM had proposed a budget of \$19.4 million (including a \$1 million line item budget for printing and reproduction) for the General Conditions section of the GMP. During the negotiation process, the General Conditions section of the GMP was negotiated down from the \$19.4 million to \$15.4 million. Included in the reduction of \$4 million was a reduction of \$500,000 in the line item budget for printing and reproductions bringing the amount to \$500,000.

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March 8, 2001, that resulted in this increase, was stated as follows:

The current costs for reproductions have exceeded the \$500,000 allowance. As of 3/5/01 we have spent \$532,045.24. Please tell me how much you want to increase the budget and we will submit a PCO<sup>2</sup>.

We believe the following contributed to the overrun in the line item budget (in addition to the circumstances noted in Recommendations for Improvement Nos. 2-5):

- A) There were approximately thirty-one Architectural and Engineering associates and sub consultants working on the project. This made coordination of the drawings very difficult and drawings had to be reproduced to accommodate them. However, the CM was aware of the size of the A&E's team prior to the execution of the CM At Risk Agreement and the establishment of the GMP.
- B) Because of the project's size and its "fast track" nature, there were numerous Requests for Information (RFI) seeking clarifications.
- C) The contract between the A&E and the County required nine drawing packages for the project. After completion, these nine drawing packages were repackaged into five composite building sets. Subsequently, there were numerous revisions (up to 31 in some instances) of the composite sets of drawings. Initial drawings and the revisions were reproduced to provide copies for the A&E, CM, and Program Manager's use.

In our discussions with the County's Project Director and the Program Manager with respect to the number of revisions of the composite sets of drawings, they informed us of the following:

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<sup>2</sup> Potential Change Order

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- The intent of reorganizing the nine drawing packages into composite building sets, which were requested by the CM, was to make the administrative process more efficient, improve coordination of the design and to give the trades and everyone else a complete picture of the entire scope of work;
- Some revisions were necessary to accommodate value engineering changes;
- Because this is a fast track project, construction began before the design was finished; and,
- Revisions were expected, but the estimate of the number of pages needed was significantly understated.

The reasons given by the County's Project Director and the Program Manager for the numerous revisions, and ultimately more copies and overruns in the printing and reproductions line item budget, while possibly acceptable as explanations for the increased costs, do not justify payment from the Owner's Contingency. The circumstances are all within the CM's scope of work and should have been known by the CM at the time the GMP was established. Therefore, the circumstances constitute part of the risk undertaken in a CM At Risk Agreement. Further, the project's size and fast track nature prompted the selection of a CM At Risk Agreement with a GMP. Also, the problem of not having accurate estimates falls within the risks assumed by the CM.

Since there was not adequate justification for meeting the reproductions cost overrun from the Owner's Contingency, the overrun should have been funded from the CM's contingency.

**We Recommend** the following:

- A) The County negotiates an equitable credit with the CM to reverse the change orders totaling \$700,000 for restoration to the Owner's Contingency account.

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- B) The County, for this and future CM At Risk Agreements with a GMP, ensures adequate justification is provided (in writing) when utilizing funds from the Owner's Contingency.

### **MANAGEMENT'S RESPONSE:**

I do not concur with Recommendation #1. Given the circumstances of which you are aware, it was reasonable and necessary that the Construction Manager ("CM") exceed the \$500,000 allowance for printing and reproduction, due to numerous design revisions where construction documents had to be reproduced for the CM and all of the Trade Contractors. In September 2000 the budget for printing and reproduction, as part of the General Conditions negotiations, was set at \$500,000.

The CM had recommended the budget be set at \$1,000,000. The Program Manager (PM) had recommended to the Owner (Orange County) that the budget be reduced for printing and reproduction, along with other budget line items, in an attempt to force the General Conditions' budget to a lesser number. The CM's Guaranteed Maximum Price (GMP) proposal of September 29, 2000, contained \$15,380,000 for General Conditions. To arrive at this number a \$4,000,000 reduction in the CM's initial General Conditions cost of \$19,380,000 was required.

The Owner, PM and CM agreed to treat this \$4 million as an allowance toward General Conditions costs with hopes of reducing General Conditions costs.

### **2. Review of Invoices for Printing and Reproduction of Drawings Should Include an Assessment of the Reasonableness of the Services Provided**

Our review of a sample of invoices for the printing and reproduction of drawings revealed that there were instances when invoices were paid by the County for services that were not requested and for services that should have been billed to the A&E. Specifically, we noted the following:

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- A) Invoice No. MR1857 dated March 8, 2001, from the printer included an additional charge of \$0.05 per square foot for 8,274 square feet of bond paper amounting to \$414 for a "Rush" order. Instructions to the printer were "please print and ship per memo. NEXT WEEK OK after our orders have been printed." The CM confirmed that this order was not a "rush job." Accordingly, the additional cost of \$414 should not have been paid.
  
- B) Invoice No. MR1843 dated March 2, 2001, included an additional charge of \$4,102 for 3,418 units at \$1.20 per unit for an item described as "Photo" relating to revision No. 2 of composite building set. The CM was unable to explain what the cost represented. In addition, they were also unable to obtain an explanation of the cost from the printers due to a change of ownership and personnel.
  
- C) Invoice No. MR1839 dated March 9, 2001, totaling \$1,540 represented the cost of printing "PEDESTRIAN CONNECTOR 60%" drawings on vellum and blue line. These are copies of incomplete drawings that the A&E ordered from the printer. The costs should have been billed directly to the A&E.

Billings for printing and reproduction of drawings should cover only those services ordered. In addition, such billings should be reviewed by the Program Manager and the County for reasonableness. No invoice should be paid unless the County understands what services were provided. The County improperly reimbursed the CM a total of \$6,056 for these items.

Since our review was conducted on a sample of two monthly General Conditions' payments, questionable payments such as described above could potentially be significant for the entire project period.

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### **We Recommend** the following:

- A) The County establishes policies and procedures to ensure that the review of invoices for the printing and reproduction of drawings include an adequate assessment of the reasonableness of the services provided.
- B) The County reviews past paid invoices for printing and reproduction of drawings for reasonableness, identify instances where services provided are questionable or should have been paid by the A&E, investigate them and request credits where applicable.

### **MANAGEMENT'S RESPONSE:**

I concur with Recommendation #2; however, I believe the Project [Team] in fact does review each item of the General Conditions invoices for reasonableness. The total cost of the three items cited is \$6,056 out of a total expenditure to-date of over \$1.2 million. Although the County should not pay for any wrongfully billed expenses, the three cited items involve questions of individual judgment in the midst of follow-up issues relating to revisions to the construction documents.

### **3. General Conditions Expenditures Should Be Authorized and Incurred by the CM Only**

The A&E placed some print orders for design and construction documents directly with the printer without going through the CM. Costs of these print jobs were then billed directly to the CM for payment out of their General Conditions funds. The CM took exception to this practice and, as a result, refused to sign off on related invoices as they could not attest to the order and receipt of the print jobs. The County allowed the A&E's practice and reimbursed the costs to the CM based upon the signature of an A&E employee. As a result, the CM did not have complete control over the General Conditions budget line for

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reproductions. This may have contributed to the substantial overrun of this budget line as noted in Recommendation No. 1 above. Only the CM has the authority to commit and expend funds from the GMP.

**We Recommend** the County establishes policies and procedures to ensure that only the CM commits funds and incurs expenses for the printing and reproduction of drawings where such expenditures are to be paid from General Conditions' funds.

### **MANAGEMENT'S RESPONSE:**

I concur with Recommendation #3. As I am sure you are aware, the instances referred to in this recommendation were an expense properly payable from the General Conditions budget. The instances resulted from the A/E's in not ensuring all printing/reproduction orders were placed with the CM rather than directly with the printing company.

#### **4. Fees for Printing and Reproduction Services Should Be Formalized in Writing and Used by the Program Manager and the County as the Basis for Their Review of Related Invoices**

There was no written agreed upon fee schedule for printing and reproduction expenses between the CM and the vendor for reproduction services prior to requesting services. In addition, the Program Manager and the County accepted the prices noted on the invoices in the absence of a schedule of fees. It appears that the CM negotiated prices after the CM noted that the various fees being charged were too high. The CM informed us that fees were subsequently negotiated several times before they were brought down to acceptable amounts. For example, the price of vellum (per square foot) started out at \$1.00, but was reduced to \$0.75 and then to \$0.60. Also, the price of bond paper (per square foot) was reduced from \$0.50 to \$0.40 to \$0.25 to \$0.15. In addition, the fees negotiated were not formalized in writing.

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Although the subsequent reduction in prices paid for reproduction by the CM was beneficial, fees for the various printing and reproduction services should have been negotiated and established (with consideration given to volume discounts) at the time the contract was issued. A written schedule of the fees should be part of the CM's contract with the printing company. The Program Manager and the County should use the written agreement and the revised fee schedules as the basis for their review of invoices from the printer.

Without a written schedule of printing and reproduction fees, the Program Manager and County reviewers were unable to verify the accuracy of the amounts paid. Also, significant volume discounts may have been lost as fees were negotiated after the fact. For example, an order for the reproduction of drawings involving 30,087 square feet of vellum at a cost of \$0.75 per square foot totaled \$22,565. If the subsequently negotiated lower rate of \$0.60 per square foot was used for this order, the savings would have been \$4,513.

**We Recommend** the following:

- A) The County ensures that the CM formalize, in writing, fees for printing and reproduction services and a written schedule of such fees made a part of the contract with the printer.
- B) The Program Manager and the County obtain a copy of the schedule of printing and reproduction fees from the CM and use it as the basis of their review of invoices for future printing services.

### **MANAGEMENT'S RESPONSE:**

I concur with Recommendation #4. The CM has obtained the schedule of the printing and reproduction fees for use in reviewing invoices.



**5. Blue Line Paper Should Be Used Instead of Bond Paper in Instances Where Drawings Are Needed as Working Copies**

It appears there were instances when the A&E could have obtained copies of drawings on blue line paper instead of on bond paper. The price of bond ranged from \$0.50 per square foot to \$0.15, where as the cost of blue lines was fixed at \$0.06 per square foot. To help reduce costs, blue line paper should be used in instances where drawings are needed for working copies and not for archival purposes.

The A&E insisted on obtaining printed copies of drawings on bond paper instead of blue line because, according to them, bond does not fade or smear as blue lines do. In addition, they felt that "as blue line drawings age, the very small numbers, dimensions, symbols and words become impossible to read." While we do not contest these arguments, we question the use of bond in cases where the drawings are needed as working copies. The CM's opinion was that bond copies should not be used in these instances. The CM questioned this practice and, in one instance, on March 11, 2001, asked the County to inform the A&E,

...they can't have bond prints, and that they have to use blue lines like the rest of us. Bond prints cost \$.25/sf, blue lines cost \$.06/sf. This is made even worse by the voluminous revisions. They just ordered 9 half size sets and 1 full size set of Revision 2 to the Composite Building set. Revision 2 is approximately 1,000 drawings. Not only is the cost of printing the original 1,000 sheets (times however many sets they ordered) that are now being replaced wasted, but it cost 4 times more than it needed to.

The County initially agreed with the CM. In their response to the CM's request, the County's Project Director replied to the CM on March 12, 2001 as follows: "I see no reason for the [A&E] team to be getting bond prints in lieu of blue lines. The [A&E] team can pay the difference if they want bond prints." However, this decision was subsequently reversed based

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upon the Program Manager's directive on March 14, 2001. According to the County's Project Director, after subsequent discussions with the Program Manager, it was agreed to leave the question of when to use bond paper versus blue line paper up to the professional judgment of the A&E. As a result, no procedures were put in place to review A&E print orders to ensure that blue lines were used for working copies.

We noted that the cost of bond copies was substantially more than copies on blue line. In the instance (quoted above) where the CM questioned the use of bond in preference to blue line copies, the CM calculated that the savings would have been approximately \$14,000 if the copies were obtained on blue line.

**We Recommend** for this and future contracts the County establishes policies and procedures to ensure that the A&E use blue line paper instead of bond paper in instances where the drawings are needed as working copies and not for archival purposes.

### **MANAGEMENT'S RESPONSE:**

I do not concur with Recommendation #5. It has been the Project's policy that blue line drawings should be used in lieu of bond paper drawings whenever feasible, to reduce costs. This issue was thoroughly discussed and reviewed. It was my conclusion and decision that, when licensed professional engineers and architects know of the policy, and nonetheless request that they be provided bond paper drawings, their requests should be respected.