



**METROPOLITAN GOVERNMENT OF
NASHVILLE AND DAVIDSON COUNTY**

OFFICE OF INTERNAL AUDIT

Professional Audit and Advisory Service

FINAL REPORT



**Audit of the Music City Convention Center Construction
Project**

INTERIM REPORT

JUNE 1, 2011, THROUGH NOVEMBER 30, 2011

Date Issued: December 19, 2011

Office Location and Phone Number

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*The Metropolitan Nashville Office of Internal Audit is an independent audit agency
reporting directly to the Metropolitan Nashville Audit Committee*

EXECUTIVE SUMMARY

December 19, 2011

Results in Brief	Recommendations
<p>The Metropolitan Nashville Office of Internal Audit performed an audit of the Music City Convention Center construction project. Key areas reviewed included:</p> <ul style="list-style-type: none"> • Diversity business enterprise processes and controls • Distribution of project management tasks • Local and statewide labor participation <p>Audit objectives and conclusions were as follows:</p> <ul style="list-style-type: none"> • <i>Were there any observed gaps in the project management process?</i> Generally no. Although the project management process is intact and functioning as intended, our initial assessment indicated some key individuals had extensive responsibilities that may inhibit effectiveness. • <i>Was there adequate support for reported diversity business enterprise payment distributions?</i> Yes. Current procedures and processes provide reasonable assurance on reported diversity business enterprise facts and figures. • <i>Were local and statewide labor participation expectations being achieved?</i> Undeterminable. Limitations were encountered because worker’s residence information was not always disclosed by contractors. Also, specific management goals for local and statewide labor participation rates have not been established. <p>In December 2010, the audit sample month with the greatest percentage of workers residence information (90%), our review indicated local and statewide participation rates of 55.3% and 61.7% respectively (see Exhibit E, page 6).</p>	<p>Key recommendations of this report include for the Authority’s project management team to:</p> <ul style="list-style-type: none"> • Continue the vigilant and proactive approach in assessing project management. • Consider the benefits and risks of measuring local and statewide labor participation for the Music City Convention Center construction project.

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INTRODUCTION

AUDIT INITIATION

The continuous performance audit of the Music City Center construction is being conducted as part of the approved 2011 Audit Work Plan. This is the fourth in a series of interim reports that will be issued throughout the duration of the construction project. These reports will culminate with a more detailed performance audit report at the conclusion of construction related activities. Significant observations and recommendations noted throughout these interim reports will be incorporated in the final report.

MUSIC CITY CONVENTION CENTER PROJECT STATUS

Exhibit A - Project Budget Status as of November 30, 2011

<i>Description</i>	<i>Budget</i>	<i>Paid to Date</i>	<i>Paid Percentage</i>	<i>Cost to Complete</i>	<i>Remaining Percentage</i>
Direct Construction Costs	\$452,744,757	\$262,307,013	58.1	\$189,437,744	41.9
Land Acquisition & Relocation Costs	57,000,000	52,716,251	92.5	4,283,749	7.5
Architectural Design & Engineering	40,489,684	35,852,607	88.5	4,637,077	11.5
CCA Project Management	10,993,758	6,285,578	57.2	4,708,179	42.8
Project Insurance & Programs	8,252,322	5,840,291	70.8	2,412,030	29.2
Legal, Financing, Audits, and Consultants	2,869,480	1,949,342	67.9	920,138	32.1
MCC Furniture, Fixtures, and Equipment	11,650,000	147,500	1.3	11,502,500	98.7
MCC Pre Opening Operations	2,000,000	-	0.0	2,000,000	100.0
Totals	\$585,000,000	\$365,098,583	62.4	\$219,901,417	38.0

Source: Convention Center Authority Project Financial Summary

SIGNIFICANT PROJECT MILESTONES AS OF NOVEMBER 30, 2011

- The project is more than halfway complete: at the end of September, it was 56 percent finished.
- Structural steel erection will wrap up in early December.
- The daily average workforce is about 1,000 people.
- Most of the exterior trades are working on the site: metal panel is being installed on the southeast elevation, curtain wall has been completed on 6th Avenue and is working east down Demonbreun Street, and brick masons are laying brick on the west and south faces of the building.
- The concrete team has finished their final elevated pour on the job and only has a few slabs on metal deck pours to complete before wrapping up.

Exhibit B – Aerial View of Construction Progress



Exhibit C – Roof Installation at the Main Exhibit Hall



AUDIT ACTIVITY UPDATE

BACKGROUND

For this interim reporting period, the Metropolitan Nashville Office of Internal Audit, hereinafter referred as Office of Internal Audit, conducted the following audit procedures:

- Gap analysis of the project management process and associated internal control procedures.
- A review of the accuracy of the quarterly reports submitted by the Diversity Business Enterprise program to the state of Tennessee.
- Review the completeness of the Authority's Diversity Business Enterprise program required certification process.
- A review of local labor participation for the Nashville/Davidson county Metropolitan Statistical Area.
- A review of labor participation for the entire state of Tennessee.

Gap analysis is a technique used to determine the status of a current state when compared to a desired state. The object of the exercise is to ascertain whether the current state of affairs is adequate or if steps are needed to address observed shortcomings. For this portion of the audit, we utilized the gap analysis methodology as designed and devised by McDonald and Associates, Inc. McDonald and Associates, Inc. has extensive experience in identifying risks associated with various types of construction projects.

The Diversity Business Enterprise program is an initiative promoted by the Convention Center Authority to enable and ensure that minority, women-owned, and small business enterprises are provided the maximum opportunity to participate as subcontractors, suppliers, and vendors in all phases of construction of the Music City Convention Center. The desired goal of the program is to achieve 20 percent diversity business enterprise participation. The program follows guidelines as defined within Exhibit G of the Construction Management Agreement between the Convention Center Authority and Bell/Clark. As part of our evaluation, the Office of Internal Audit assessed the accuracy and validity of the numerical diversity business enterprise figures submitted quarterly to the Tennessee Comptroller of the Treasury's Office.

The last portion of this audit pertained to assessing the local and statewide labor participation. Local participation is defined as workers residing within the Nashville and Davidson County metropolitan statistical area as designated by the United States Census Bureau. The metropolitan statistical area includes Davidson County and the following 12 Counties of: Cannon, Cheatham, Dickson, Hickman, Macon, Robertson, Rutherford, Smith, Sumner, Trousdale, Williamson, and Wilson.

The Authority indicated that the project's local workforce development program was instrumental in adding 311 jobs on-site; representing a third of the daily average workforce.

OBJECTIVES AND CONCLUSIONS

1. *Was there any responsibility gaps discovered during assessment of the project management process?*

Generally no. In the application of the gap analysis matrix developed by McDonald and Associates, Incorporated, we noted the following conclusions:

- Almost all necessary project management functions, as delineated by the matrix, are being addressed by the project management team.
- Functions, delineated by the matrix, not explicitly performed by the Authority's project management team were due to contractual limitations; the responsibility for which is under the purview of the construction manager.
- The gap analysis showed that all necessary project management functions and responsibilities are assigned to, and handled by, a primary and secondary individual(s); indicating efficient support structure.
- There appears to be a disproportionate distribution of project management tasks to some key individuals (see Observation A).

2. *Were the reported quarterly diversity business enterprise facts and figures adequately supported?*

Yes. Independent evaluation of the reported third quarter diversity business enterprise figures did not find any material deviance from the reported information. The verification process included reviewing Schedule G-6-2006, which are record of payments to diversity business enterprise firms by the prime contractors, and performing recalculations. Using those procedures, supporting payment applications totaling \$66,714,470 were verified. The verified value was slightly higher than the \$66,693,845 reported by the Diversity Business Enterprise project management team. Variances resulted from timing and adjustment factors.

Additionally, the total dollar value of payments to date to various minority owned, small business, and women owned enterprises were evaluated. The summary for each diversity business enterprise component can be seen in Exhibit D below.

**Exhibit D – Diversity Business Enterprise Component by Type as of
October 31, 2011**

<i>Diversity Business Enterprise Component</i>	<i>Stated Contract Value</i>	<i>Verified Payments</i>	<i>Percentage of Contract Payments</i>
African American Female Business	\$ 831,280	\$ 528,482	63.6
African American Male Business	45,646,368	27,976,445	61.3
Asian Pacific Business (Male and Female)	2,035,006	1,875,113	92.1
Hispanic American Female Business	300,000	-	0.0
Hispanic American Male Business	94,505	84,088	89.0
Native American Business	300,000	-	0.0
Small Business	41,701,525	22,900,397	54.9
Women Owned Business	32,250,077	13,349,945	41.4
Totals	\$123,158,761	\$66,714,470	54.2

Source: Convention Center Authority and Office of Internal Audit Observation and Calculation

The diversity business enterprise reporting mechanism is based primarily on payments made by the Convention Center Authority to the prime contractors. Therefore, there will be a general timing difference from the time the project management team officially records the payments, to the time the diversity business enterprise components actually receive their disbursements. It is not the Authority's responsibility to pay each of the diversity business enterprise components directly. Consequently, since the Authority's financial obligation ends when the prime contractor is paid, the project management team is required to record these payments and incorporate them into the Diversity Business Enterprise report. Monthly payments are compiled and quarterly summaries are then generated from the monthly payments and submitted to the State Comptroller's office as well as to the members of the Metropolitan Nashville Council.

3. *Were local and statewide labor participation expectations being achieved?*

Undeterminable. Limitations were encountered because worker residence information was not always disclosed by contractors. Also, specific management goals for local and statewide labor participation rates have not been established.

The level of project local and statewide labor participation was reviewed for residence disclosures from:

- Bell/Clark staff
- Convention Center Authority project management staff
- Contractor's certified payrolls, when available

The methodology involved developing a table that contained all 786 Tennessee zip codes, including the 126 postal zip codes associated with Davidson County, and the 12 counties that comprise the metropolitan

statistical area. Reported worker zip codes were then matched to the table to determine if they reside within the metropolitan statistical area, within Tennessee, or outside of Tennessee. The procedures were performed for the months of June and December 2010 and April and September of 2011. The summary results of the review can be seen below.

Exhibit E – Available¹ Local and Statewide Labor Participation Rates

Month Evaluated	Total Workforce	Workforce with Addresses	-----Workforce with Addresses-----		
			Total Workforce Percentage	Local Participation Percentage	Tennessee Participation Percentage
September 2011	1,040	354	34.0	68.5	83.1
April 2011	782	479	61.3	62.8	74.3
December 2010	586	530	90.4	55.3	61.7
June 2010	325	212	65.2	46.9	53.5

Source: Office of Internal Audit Observation and Calculation.

Only some contractors provided workers residence information (home/domicile address). This was consistent with the need to protect and secure workers' personally identifiable information. The available local participation percentages were derived from workers whose employer had voluntarily included residence information on certified payrolls. The results of the procedures indicated that a more accurate assessment of the local and statewide participation rates can be achieved if contractors provide the Authority or its representative a listing of covered employees residence information, or facilitate inspection of personnel files at the their place of business (see Observation B).

¹ Not all contractors submitted workers residence information.

OBSERVATIONS AND RECOMMENDATIONS

A – Unequal Distribution of Task Responsibilities and Functions.

Results of the gap analysis appear to indicate a disproportionate distribution of project management task to some key individuals. Upon the conclusion of the review, observations regarding unduly concentrating several functions on some key individuals were brought to management's attention and discussed. The Office of Internal Audit understands that, given the staffing limitations of the project management team, it was not uncommon to see several key individuals, partly because of their underlying expertise and position within the structure, take on multiple and diverse responsibilities. Audit concerns regarding this matter pertain to the possible reduction in the quality of outputs due to task overload. In addition, the possible risks to the project management team's ability to seamlessly function become magnified if that key person were to depart or take an extended leave of absence.

In response to audit concerns, the project management team, under the behest of the Senior Project and Development Manager, moved decisively and proactively to avert any undesirable consequence by restructuring the organization. The restructured organizational schema also included a redistribution of critical tasks, realignment of contract responsibilities, and a lessening of scope for the overloaded individuals. Management's vigilant actions are commendable in light of the dynamic nature of the construction project and its ever changing needs. The revised project management organizational chart can be seen on Exhibit F on Appendix A.

Criteria:

- Project Management Task Analysis Matrix designed by McDonalds and Associates, Inc.
- Prudent business practice

Risks:

- Unduly concentrating tasks and responsibilities to one individual can result in decreased performance and quality of output
- Gaps in the project management process can result in critical areas not being properly addressed

Recommendation:

The Authority's project management team should continue the vigilant and proactive approach in assessing project requirements and make the necessary adjustments as required.

B – Workers' Residence Information not Readily Available

Workers' residence (home/domicile address) information was not available from all contractors. This missing information hampered the determination of local and statewide participation rates. State and local regulations, as well as existing contractual stipulations do not require the inclusion of

residence information for each covered worker for weekly certified payroll submissions. Protecting and securing workers' personally identifiable information notwithstanding, enabling the Authority or its representative to access worker addresses can facilitate a more accurate and complete assessment of the local and statewide labor participation rates.

Also, specific management goals for local and statewide labor participation rates have not been established.

Criteria:

Metropolitan Nashville citizens' expectation of local worker participation

Risks:

Missing workers' residence information hinders accurate measurement of local and statewide labor participation rates.

Recommendations:

The Authority's project management team should consider the benefits and risks of measuring local and statewide labor participation for the Music City Convention Center construction project. If measurement of local and statewide labor participation is considered beneficial, then percentage of participation goals should be established. Additionally, the Authority's project management team, along with the construction management team, should determine a cost effective method to measure progress toward goal achievement while maintaining the security of workers' private information.

One potential method to accomplish the measurement of local and statewide labor participation would be to request contractors to make employment records available for the Authority or its representatives for inspection at the contractor's place of business.

GENERAL AUDIT INFORMATION

STATEMENT OF COMPLIANCE WITH GAGAS

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform our work to obtain sufficient, appropriate evidence to provide a reasonable basis for our observations and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our observations based on our audit objectives.

SCOPE AND METHODOLOGIES

The audit period focused primarily on the period encompassing the beginning of on-site construction activities from April 1, 2010, through November 30, 2011, and the performance on the processes in place during the time of the audit. To perform the review and the test of details, the Office of Internal Audit conducted interviews, obtained copies of certified payrolls, performed document examination, and performed recalculations to determine the accuracy, completeness, and validity of management assertions pertaining to project management processes, diversity business enterprise facts and figures, and local and statewide participation rates.

CRITERIA

In conducting this audit, the existing processes and controls to the Music City Convention Center construction project were evaluated for compliance with:

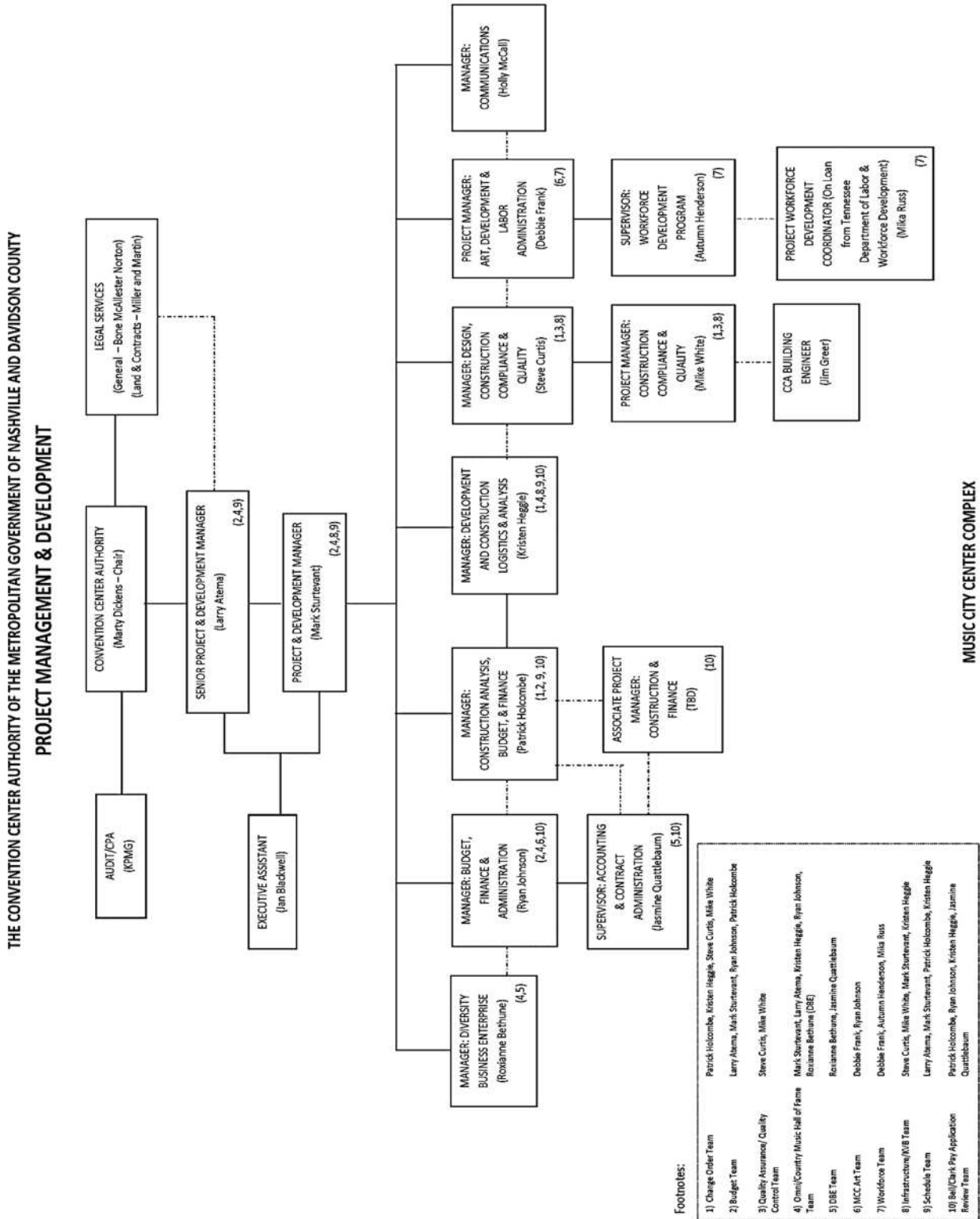
- Construction Management Agreement between the Convention Center Authority and Bell/Clark a Joint Venture
- Stated goals of the Diversity Business Enterprise program
- Gap analysis matrix developed by McDonald and Associates, Incorporated for the Music City Convention Center
- Metropolitan Nashville citizens' expectation of local worker participation
- Prudent business practice

STAFF ACKNOWLEDGEMENT

Mel Marcella, CPA, CIA, CFE, CISA, CMA, In-Charge Auditor
Mark Swann, CPA (Texas), CIA, CISA, Project Quality Assurance

APPENDIX A. EXHIBITS

Exhibit F – Revised MCC Project Management Organizational Chart



APPENDIX B. MANAGEMENT RESPONSE

- Management's Responses Starts on Next Page -



December 13, 2011

Mark Swann
Metropolitan Auditor
Office of Internal Audit
222 3rd Avenue North, Suite 401
Nashville, TN 37201

Re: Convention Center Authority – response to interim audit

Dear Mr. Swann:

This letter acknowledges that The Convention Center Authority is in receipt of the interim audit report for the period April 1, 2010 through November 30, 2011. The Convention Center Authority has evaluated all of the observations raised in this report. The Convention Center Authority will undertake the recommended actions. For the items that are on-going, an update can be made available as needed.

Thanks for your assistance and cooperation during this process. Please let us know if you need anything further from us at this time.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Atema", with a long horizontal flourish extending to the right.

Larry Atema
Senior Project and Development Manager
Convention Center Authority

cc: Marty Dickens
Mark Arnold
Charles Robert Bone
Rich Riebeling
Charles Starks

Attachments: Audit of the Music City Convention Center Construction Report
Management Response to Audit Recommendations

**Audit of the Music City Convention Center Construction Project
Management Response to Audit Recommendations**

Audit Recommendation	Response to Recommendation / Action Plan	Assigned Responsibility	Estimated Completion
<p>A. The Convention Center The Authority's project management team should continue the vigilant and proactive approach in assessing project requirements and make the necessary adjustments as required.</p>	<p>Accept.</p>		<p>On-going</p>
<p>B. The Authority's project management team should consider the benefits and risks of measuring local and statewide labor participation for the Music City Convention Center construction project. If measurement of local and statewide labor participation is considered beneficial, then percentage of participation goals should be established. Additionally, the Authority's project management team, along with the construction management team, should determine a cost effective method to measure progress toward goal achievement while maintaining the security of workers' private information.</p> <p>One potential method to accomplish the measurement of local and statewide labor participation would be to request contractors to make employment records available for the Authority or its representatives for inspection at the contractor's place of business.</p>	<p>Accept.</p>		<p>On-going</p>