



Susan Montee, CPA

Missouri State Auditor

Metro (St. Louis)

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Office of
Missouri State Auditor
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The following report is our audit of Metro (St. Louis).

Metro provides public transportation services to the Metropolitan St. Louis area including light rail, bus and demand response services. In addition, Metro operates the tram system for the Gateway Arch, the Arch Parking Garage, the Gateway Arch Riverboats, and the St. Louis Downtown Airport. Metro began construction of the MetroLink light rail system in the late 1980's and opened the original 17 mile stretch from Lambert International Airport to downtown St. Louis in 1993.

The Cross County Extension project was the result of a regional transportation planning process conducted by the East-West Gateway Council of Governments and was made part of the regional transportation improvement plan. This corridor had been identified as a "tier 1" priority extension in 1991. In 1999, the East-West Gateway Board selected the preferred alignment and conceptual design for the Cross County Extension Project and estimated the project cost would be \$404 million in constant 1999 dollars, or \$471.3 million in 2005 dollars. The reference to 2005 dollars was used because that was the projected year of completion. The East-West Gateway Board determined that the Project would be funded by the regional Proposition M sales tax. Federal participation was not a consideration at that time as no federal funds would be available for that purpose for several years. In May 2000, Metro hired the Cross County Collaborative (CCC), a joint venture of four engineering companies, to perform design, project management, and start-up services for the project. This project extended the Metro Link system 8.2 miles west and south from the existing Forest Park Station running west through Clayton and south or southeast along Interstate 170 to Lansdowne Avenue in Shrewsbury, Missouri.

The financial impact of the Cross County Extension Project has placed numerous burdens on Metro's operating budgets for future years. These burdens could significantly impact the operations of Metro and the users of their services. Metro did not control the cost of the Cross County Extension Project and now faces significant funding shortages. Metro did not ensure the final design of the project prepared by the CCC was substantially complete and free of errors and omissions before proceeding with solicitation of construction bids. Metro also (1) did not retain the services of a project management oversight consultant prior to the completion of the final design, (2) did not ensure utility relocation design work was completed timely and did not ensure utility relocation work was coordinated with construction work, (3) did not follow federal guidance by requesting lump sum bids, and (4) issued bid documents that contained conflicting provisions regarding the contractors' responsibility for excavation of rock and utility relocation. As a result, the final estimated cost of the project, \$686 million, exceeded the original project budget of \$550 million by about \$136 million.

(over)

YELLOW SHEET

Through April 2008, 1,636 construction change orders totaling about \$147 million had been approved. Metro did not always require a record of negotiations to be maintained when processing change orders and approved some change orders containing questionable items. Metro required aggressive work completion schedules that included short periods of time between the completion of the construction of the track bed and start dates for trackwork and rail systems. Metro, in response to problems encountered during construction, authorized change orders for acceleration of the remaining work by contractors that included significant amounts for premium time and inefficiencies to avoid reimbursing contractors for additional delays.

Metro did not ensure the project change order control system for the Cross County Extension Project was properly utilized, and did not require the cause of the change to be identified and recorded through the use of reason codes as change orders were processed. Metro did not perform any analysis of the reason codes that may have resulted in an earlier identification of significant and developing problems on the project. Federal guidelines recommend the use of reason codes within the project change order control system.

As the project was being designed and built, entities including several local governments, the Missouri Department of Transportation, and Washington University requested design changes and entered into funding agreements, referred to as betterments, to compensate Metro for some or all of the additional project costs. The audit made recommendations to ensure agreements are written, specify the parties responsible for cost overruns, establish payment schedules, and for Metro to continue negotiation with entities regarding unrecovered costs.

The Metro Board of Commissioners approved and paid bonuses, executive stipends, severance payments, and retroactive raises since 2003 totaling at least \$704,600 to three executive employees who reported directly to the board. The board also approved one time economic bonuses totaling over \$810,000 and granted retroactive pay increases totaling over \$166,000 for salaried employees. In addition, retention incentives totaling \$145,460 were made to 14 employees of the engineering division without explicit approval of the board. The practices of providing these types of additional compensation payments are unusual and questionable in most government agencies. In addition, these practices may violate Article V of the interstate compact under which Metro was established.

We also noted concerns regarding Metro's compliance with its open meetings and records policies, review of invoices for legal and professional services, and questioned their practices allowing certain types of expenditures.

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METRO (ST. LOUIS)

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STATE AUDITOR'S REPORT



SUSAN MONTEE, CPA
Missouri State Auditor

Honorable Matt Blunt, Governor
and
Metro Board of Commissioners
and
Jeffrey K. Watson, Chairman
and
Robert J. Baer, President and Chief Executive Officer
707 North First Street
St. Louis, Missouri

The State Auditor was requested by the Honorable Matt Blunt, Governor, under Section 26.060, RSMo, and was also invited by the Metro Board of Commissioners to audit Metro and the Cross County Extension Project. The agency engaged Mayer Hoffman McCann P.C., Certified Public Accountants (CPAs), to audit the agency's financial statements for the years ended June 30, 2007, 2006, 2005 and 2004. The agency also engaged PriceWaterhouseCoopers LLP, CPAs to audit the agency's financial statements for the year ended June 30, 2003. To minimize duplication of effort, we reviewed the reports and substantiating working papers of the CPA firms. The scope of our audit included, but was not necessarily limited to, the five years ended June 30, 2007. The objectives of this audit were to:

1. Evaluate the agency's internal controls over certain management and financial functions.
2. Evaluate the agency's compliance with certain legal provisions.
3. Evaluate the economy and efficiency of certain management practices and operations.
4. Evaluate the management of the Cross County Extension project.

Our methodology included reviewing minutes of meetings, written policies, financial records, contracts, management reports, and other pertinent documents; interviewing various personnel of the agency, as well as certain external parties; and testing selected transactions.

We obtained an understanding of internal controls that are significant within the context of the audit objectives and assessed whether such controls have been properly designed and placed in operation. We also tested certain of those controls to obtain evidence regarding the

effectiveness of their design and operation. However, providing an opinion on internal controls was not an objective of our procedures and accordingly, we do not express such an opinion.

We also obtained an understanding of legal provisions significant within the context of the audit objectives, and we assessed the risk that illegal acts, including fraud, and violations of contract, grant agreement, or other legal provisions could occur. Based on that risk assessment, we designed and performed procedures to provide reasonable assurance of detecting instances of noncompliance significant to those provisions. However, providing an opinion on compliance with those provisions was not an objective of our procedures and accordingly, we do not express such an opinion. Abuse, which refers to behavior that is deficient or improper when compared with behavior that a prudent person would consider reasonable and necessary given the facts and circumstance, does not necessarily involve noncompliance with legal provisions. Because the determination of abuse is subjective, our audit is not required to provide reasonable assurance of detecting abuse.

We conducted our audit in accordance with standards applicable to performance audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform our audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based upon our audit objectives. We believe that the evidence obtained provides such a basis.

The accompanying History, Organization, and Statistical Information is presented for informational purposes. This information was obtained from the agency's management and was not subjected to the procedures applied in our audit of the agency.

The accompanying Management Advisory Report presents our findings arising from our audit of the Metro.



Susan Montee, CPA
State Auditor

The following auditors participated in the preparation of this report:

Directors of Audits: Kenneth W. Kuster, CPA
Audit Managers: John Blattel, CPA, CFE
John Luetkemeyer, CPA
In-Charge Auditor: Dennis Lockwood, CPA
Audit Staff: Kate Petschonek
Christopher Vetter
Dana Wansing

MANAGEMENT ADVISORY REPORT -
STATE AUDITOR'S FINDINGS

METRO (ST. LOUIS)
MANAGEMENT ADVISORY REPORT –
STATE AUDITOR'S FINDINGS

Background Information - Cross County Extension Project

The Cross County Extension project was the result of a regional transportation planning process conducted by the East-West Gateway Council of Governments and was made part of the regional transportation improvement plan. This corridor had been identified as a "tier 1" priority extension in 1991. In 1999, the East-West Gateway Board selected the preferred alignment and conceptual design for the Cross County Extension Project and estimated the project cost would be \$404 million in constant 1999 dollars, or \$471.3 million in 2005 dollars. The reference to 2005 dollar was used because that was the projected year of completion. The East-West Gateway Board determined that the Project would be funded by the regional Proposition M sales tax. Federal participation was not a consideration at that time as no federal funds would be available for that purpose for several years.

The project extended the MetroLink system 8.2 miles west and south from the existing Forest Park Station running west through Clayton and south or southeast along Interstate 170 to Lansdowne Avenue in Shrewsbury, Missouri. The project included purchase of rights of way, construction of the railway, and 10 passenger stations, and the purchase of 22 additional light rail vehicles. In addition, the project included about \$34 million in betterments, such as bridges and changes to the conceptual alignment made at the request of St. Louis County, several local jurisdictions, and the Missouri Department of Transportation.

Metro took over development of the extension project from the East-West Gateway Board and subsequent planning resulted in the addition of an estimated \$79 million in operational and safety modifications, equipment needs, and engineered real estate and utility relocation cost estimates. In May 2000, Metro hired the Cross County Collaborative (CCC), a joint venture of four engineering companies, to perform design, project management, and start-up services for the project. In November 2001, the Metro Board of Commissioners adopted a project budget of \$550 million with an expected project completion date of May 2005. This budget included nearly \$43 million for contingencies.

The board approved more changes to the design in May 2002, after a series of meetings with various municipalities and neighborhood groups. In November 2002, Metro issued bonds in the amount of \$414 million and transferred \$95 million of Proposition M, a ¼ cent sales tax for transit collected by St. Louis City and St. Louis County, monies to a project trustee. The bond documents indicated the expected completion date had slipped to mid-2006. In December 2002, the CCC, according to Metro, indicated the design was 100 percent complete and bid packages were prepared. After the bid documents were issued, potential bidders submitted numerous questions regarding contractual issues and design clarifications. For the six major contracts, between three and six bid addendums were issued. Those addendums substantially shifted much of the contractor's risk for unknown conditions, such as depth of rock, unidentified utilities, and delays arising from utility interferences, from the contractor to Metro. Those addendums also revised from 22.8 to 35.2 percent of the design drawings that had been issued with the invitations for bid for the various contracts. Also in December 2002, Metro took action to split the duties of

the design and construction management contract and established a joint construction management team comprised of CCC and Metro staff.

Bids were awarded for the six main contracts between March 2003 and August 2003. Contractors continued to identify problems with the design and differing field conditions not included in the bid documents. In October 2003, Metro issued a default notice to the CCC. By July 2004, the six prime construction contractors began to submit multi-million dollar claims for additional compensation due to costs arising from utility delays, construction delays, and design modifications. According to Metro officials, these modifications were due to design errors and omissions, design modifications required by local authorities, and other issues.

Metro terminated all contracts with the CCC in August 2004, and filed a lawsuit in St. Louis County against the firm to recover damages and alleged fraud in its complaint. Metro then formed the Metro Construction Group to manage the project, hired several engineers and project administration staff that had worked for the CCC, retained three engineering firms to perform engineering and construction management services, and retained the services of a project management oversight consultant.

In March 2005, the Metro Board of Commissioners adopted a revised project budget of \$676 million and a revised completion date of October 2006. The estimated construction costs had risen from \$321 million in the 2001 project budget to \$467 million. Budgeted utility relocation costs had also grown from \$19 million to over \$41 million. The reserve for contingencies listed in the original project budget of about \$43 million had been eliminated. In November 2005, Metro issued an additional \$150 million in bonds to finance the completion of the project. The project opened for revenue service in August 2006. In December 2007, Metro issued refunding bonds with a principal amount of \$20.82 million to refinance bond principal payments totaling about \$18.1 million that would be due in 2008 and 2009 on the 2002 series bonds. Total debt service payments on the three bond series will exceed \$1.076 billion through 2036.

In December 2007, the jury in the lawsuit against the CCC found in favor of the defendants and awarded damages of \$2.56 million. The defendants requested payment of their legal costs. In January 2008, Metro and the defendants agreed to settle all claims for \$6 million. Metro funded the settlement from their self-insurance fund. Metro incurred over \$21 million in legal fees, expert witness fees, and related expenses in the lawsuit. After he resigned, the former chief executive officer indicated in a letter to the board in January 2008, that during the trial he was involved in negotiations with the CCC attorneys in hopes of reaching a settlement. During these discussions the attorneys representing the CCC spoke with the former chief executive and Metro's legal counsel about settling the case by paying \$28 million to Metro. Metro's former chief executive officer countered at \$58 million. The defendants did not make a counter offer and decided to continue with the trial.

The former chief executive officer and Metro's legal counsel had determined that \$40 million would have been the minimum settlement offer they would recommend to the board. As a result, Metro's Board of Commissioners was never presented an official action for consideration, according to Metro officials.

As of April 2008, a small amount of work on the project had not been completed, and a few additional change orders are expected. Through April 30, 2008, 1,636 construction change orders totaling over \$147 million had been approved, and project expenditures totaled \$676.8 million. Metro has projected the final completion cost of the project, including litigation expenses, may reach \$686 million.

The following project cost summary was compiled from reports by Metro Engineering:

**Cross County Extension Project Cost Summary
As of April 30, 2008**

Description	March 2005 Budget	Contract Awards to Date	Approved Change Orders (1)	Committed Contract Value	Expenditures to Date
New Start Rolling Stock - LRV	\$ 53,777,400	53,550,551	0	53,550,551	53,550,551
Support Vehicles - Miscellaneous	1,350,000	1,171,182	0	1,171,182	1,170,187
Utility Relocation	41,000,000	26,993,881	17,246,926	44,240,807	36,808,440
Construction	467,300,800	326,520,020	142,502,233	469,022,253	463,725,075
Design Professional Services	40,547,378	28,178,095	12,235,447	40,413,542	39,414,454
General Engineering Consultant	3,154,359	3,544,213	642,098	4,186,311	3,381,631
Construction Management Services	17,572,394	27,227,434	(6,834,710)	20,392,724	19,545,904
Testing and Startup	3,400,000	3,673,541	0	3,673,541	2,110,827
Real Estate Acquisition	31,939,600	26,559,064	0	26,559,064	26,559,064
PMOC (2)	1,351,400	1,228,590	0	1,228,590	1,163,339
Supplier and Workforce Diversity	1,159,458	1,087,344	(27,550)	1,059,794	1,059,793
Metro Administration	44,353,511	63,569,918	73,534	63,643,452	61,638,821
Project Income & Betterments	(30,646,240)	(29,927,482)	(4,301,272)	(34,228,754)	(30,339,556)
Total	\$ 676,260,060	533,376,351	161,536,706	694,913,057	676,788,530

(1) Construction change orders exclude \$5,048,682 funded from contract allowances, resulting in construction related change orders totaling \$147,550,915.

(2) Project Management Oversight Consultant

During fiscal years 2006 and 2005, Metro recorded asset impairment charges totaling \$105.9 million in its financial statements. These charges were needed to recognize costs for the Cross County Extension Project related to re-work and re-engineering, and other costs due to contractor performance in the construction of the Cross County Extension Project. In essence, the impairment charges were costs incurred that did not increase the value of the final project.

We began our audit fieldwork in October 2005. In May 2006, Metro refused to provide further information regarding the Cross County Extension project, citing the need for confidentiality and attorney client privilege related to the lawsuit against the CCC. We suspended our fieldwork. Following resolution of the lawsuit in January 2008, Metro requested we return to complete our audit. We initiated the second phase of our audit in February 2008.

1. Cross County Extension Project

The financial impact of the Cross County Extension Project has placed numerous burdens on Metro's operating budgets for future years. These burdens could significantly impact the operations of Metro and the users of their services.

Metro did not control the cost of the Cross County Extension Project and now faces significant funding shortages. Metro did not ensure the final design of the project prepared by the CCC was substantially complete and free of errors and omissions before proceeding with solicitation of construction bids. Metro also (1) did not retain the services of a project management oversight consultant prior to the completion of the final design, (2) did not ensure utility relocation design work was completed timely and did not ensure utility relocation work was coordinated with construction work, (3) did not follow federal guidance by requesting lump sum bids, and (4) issued bid documents that contained conflicting provisions regarding the contractors' responsibility for excavation of rock and utility relocation.

- A. The Cross County Extension Project exceeded the original project budget by nearly \$126 million and resulted in the issuance of an additional \$150 million in bonds in 2005 to finance the project and \$20.8 million in bonds in 2007 to refinance a portion of the debt service payments due in 2008 and 2009. The total debt service costs over the life of these additional bonds will exceed \$293.5 million and will not be fully paid until 2036. The additional debt service must be funded by the Proposition M sales tax and as a result Proposition M sales tax funds available for funding operations will be reduced. A proposal to increase the Proposition M sales tax rate by ¼ cent had been placed on the February 2008 ballot in St. Louis County. However, that proposal was removed from the ballot by county officials following the unfavorable outcome of the Metro lawsuit against the CCC. Also, in early 2008, Metro was informed that St. Louis County would reduce Metro's funding from the ½ cent transportation sales tax by \$8.5 million for fiscal year 2009 and \$10 million for fiscal year 2010.

As of April 30, 2008, Metro reported holding cash and investments of approximately \$131 million and various trustees held \$41 million. In March 2008, Metro prepared an analysis of cash and investments that indicated about \$71 million would be available to fund operating deficits that were expected in fiscal years 2008, 2009, and 2010, if additional revenue sources could not be identified. The analysis predicted that cash and investments available to fund operations would be about \$12 million by the end of fiscal year 2010. Also as of April 30, 2008, Metro and its trustees were holding \$28.2 million in Missouri Higher Education Loan Authority (MOHELA) securities that they have been unable to sell due to disruptions in the financial markets. The remainder of Metro's cash and investments, about \$72.8 million held by Metro and its trustees, are restricted and unavailable to fund operating deficits.

As early as April 2002, Metro's former Chief Executive Officer (CEO) informed the St. Louis County Council that Metro was facing serious shortfalls in operating the region's mass transit system. In the fall of 2006 and spring of 2007, the former CEO and executives of St. Louis County met with legislative leadership to discuss new state funding to abate the pending financial shortfall. In May 2008, Metro adopted the budget for fiscal year 2009 that included a projected budget deficit of \$10.8 million for fiscal year 2009, and also included \$8.3 million in

budgeted "other revenue sources" which were described as "the amount needed to balance the budget. The additional needed revenue could come from a successful tax referendum in St. Louis County, passenger fare increases, and/or revenues not yet determined. If no other revenues are identified, service reductions will be planned and implemented" during fiscal year 2009. The budget also projected a deficit of \$45.8 million for fiscal year 2010. The planned spending for capital improvements was also reduced from \$360.6 million in fiscal year 2009 to \$68.6 million in fiscal year 2010. Metro has scheduled a series of public hearings regarding various options for fare increases that may become effective in January 2009. Those options range from increasing the cost of all passes and transfers to increasing all fares, passes, transfers and cutting service.

Metro should closely monitor and take appropriate action to ensure the long-term stability of the agency's financial condition.

- B. The following problems with the Cross County Extension Project were recognized in a report to the Metro Board of Commissioners by the former Metro CEO at the March 18, 2005 board meeting, and/or in a letter from the CEO to Metro constituents dated February 28, 2005.
1. The decision to fund the construction of the Project solely from the regional Proposition M sales tax was made by the East-West Gateway Council of Governments. That decision was based upon the projected cost of \$471 million (in 2005 dollars), an analysis of the expected available Proposition M Funds for capital project purposes, and the lack of available federal funds for the foreseeable future. However, the decision, to proceed with the Project was made before firm engineering cost estimates (at the preliminary and final design stages) were available. The former CEO indicated, "If the federal government sponsored this project, a federal construction grant would not have been committed to without preliminary and final engineering costs."
 2. Metro continued to authorize changes to the preliminary engineering plans that had been approved in November 2001, as late as May 2002. These changes were requested by local communities, neighborhood advisory committees, and other groups. The former CEO indicated this was a major problem resulting in the delay of the completion of the final design.
 3. The final engineering design upon which the construction bid documents were based was not complete at the time bids were solicited (between March and August 2003) although the engineering design and project management firm had indicated the design was 100 percent complete. The former CEO stated, "In simple terms, the design was not contractor ready, not build-able and the fixes are now very expensive."

4. Between March 2003 and August 2004, significant problems arose with the design and project management firm's control of the project that led to the construction contractors seeking multi-million dollar claims for delays due to utility protection and relocation, and design errors and omissions. Metro terminated the contracts with the design and project management firm in August 2004, and assumed control of the project by establishing the Metro Construction Group (MCG) consisting of over 30 engineers and professionals and hired replacement engineering firms to assist the MCG.

Metro should have ensured the preliminary and final engineering cost estimates, as well as updated available funding estimates, were determined before committing to build the Cross County Extension Project. The Federal Transit Administration (FTA) guidelines for New Starts light rail projects indicates that two key phases of the project are preliminary engineering and final design and both must be sequentially and successfully developed and approved prior to funding authorization for construction. In addition, Metro should have ensured the final design documents were complete and the design was build-able prior to soliciting bids and issuing notices to proceed, and utility protection/relocation work was completed as indicated in the bid documents. The design and project management contracts required the CCC accept overall control and responsibility for all phases of the design and subsequent management of the project.

Documentation of Metro's final design review for the five largest construction contracts included over 1,800 questions, clarifications, and required changes. Documentation to support the resolution of 52 of these issues was not available and issues were resolved after the bids were opened for three of the five contracts. The resolution date was 27, 28 and 123 days after the bid opening for those three contracts. In addition, deficiencies in the design continued to be discovered throughout the remainder of the project.

If Metro had identified and required correction of problems related to the final engineering design reviews prior to solicitation of bids, subsequent problems with design and project management may have been avoided and significant cost overruns and project delays eliminated or significantly reduced. Further, when major issues with the design became apparent during construction bidder conferences, Metro did not halt the bid processes and require the design firm to complete the final design. While this would have further delayed the start of construction and possibly the opening of the project, it is likely that the magnitude of contractor claims due to delays, errors, and omissions could have been significantly reduced. In the future, Metro should ensure thorough final design reviews are performed to determine they are complete and free of errors and omissions prior to soliciting bids.

- C. Since the Cross County Extension Project was not federally funded, Metro was not required, and initially chose not to retain the services of an independent project management oversight consultant (PMOC). The FTA often utilizes the services of PMOC's to monitor federally funded transit projects. The duties of the

PMOC, as defined by federal regulation, include monitoring the progress of major capital projects to determine whether a project is on time, within budget, in conformance with design criteria, constructed to approved plans and specification, and is efficiently and effectively implemented. The use of a PMOC may have allowed Metro to recognize problems with project management control much earlier. In addition, when project design and construction management are performed by the same firm, as was done for the Cross County Extension Project, the ability of Metro to monitor contract performance may have been enhanced by the retention of a PMOC.

After the termination of the CCC, Metro retained the services of a PMOC in October 2004. In December 2004, the PMOC prepared a report with 28 recommendations regarding Metro's capabilities and processes for management of the project. Metro agreed to implement 26 of those recommendations. Metro should retain the services of a project management oversight consultant prior to the completion of the final design for future large construction projects.

- D. According to federal guidelines, a utility agreement is a legally binding document between a utility company and a transit agency that defines the scope of a relocation, including reimbursement, liability, right of entry, insurance, and schedule to complete the work. Such an agreement is essential to properly identify the parties involved and to ensure that all parties have a complete understanding of the scope, schedule, and reimbursement issues relating to the relocation.

Metro entered into utility agreements requiring the utilities to use commercially reasonable efforts to complete each phase of the work by a certain date. However, the relocation of major utilities was sometimes not scheduled to be completed until after notices to proceed were issued, and were often not completed on schedule, resulting in relocation activities interfering with construction efforts. The FTA guidelines indicate it is the transit agency's responsibility to coordinate utility relocations in a manner that will not interfere with construction. Metro indicated that the utility agreements were not negotiated well in advance of the start of construction, the design requirements for utility locations were not provided to the utilities in a timely manner, and the construction of retaining walls, bridges, tunnels, and ductbanks were also delayed by inadequate and changing designs.

Although the design and construction management contracts assigned the responsibility for utility relocations to the CCC, Metro should have ensured major utility relocations were completed, to the maximum extent possible, prior to the issuance of the construction contract notice to proceed.

- E. Metro requested lump-sum bids for the construction contracts. A lump-sum bid is a single, fixed price bid that covers all costs to complete the work without a cost breakdown of the individual units and quantities of work that make up the project.

The bidder must include a contingency factor to cover the costs for unknown risks, quantities and geological conditions. A review of federal agency guidance for pricing fixed-price construction contracts indicates lump-sum bidding is an acceptable practice when the project is not overly complex, the design is well developed, few or no modifications are likely, and the geological conditions have been identified with a high degree of confidence.

Unlike past MetroLink projects, significant portions of this project would not be built on abandoned railway right of way and would pass through the oldest and most populated parts of St. Louis City and St. Louis County. Ultimately there were over 390 real estate parcels and over 900 utility relocations impacted by the project. As a result, the Cross County Extension Project was very complex, a relatively high number of modifications was expected, and the likelihood that geographical conditions may significantly vary from predicted conditions was high. Under a unit price/quantity bid, the bid is broken down into the cost of each individual unit with estimated quantities under which the bidder will be compensated at the unit price for quantities in excess of estimated quantities or changes in quantity arising from geological conditions. Unit price/quantity bids generally include a much smaller contingency factor since the bidder's risk is reduced. A unit price/quantity method of bidding may have been a better choice.

In the future, Metro should consider adopting a unit price/quantity based bid methodology for large complex construction projects.

- F. The invitation to bid documents for the construction work contained conflicting requirements for costs associated with the excavation of rock and delays due to utility relocations. These conflicting requirements resulted in confusion among the bidders and likely resulted in inflated bids as well as created the basis for later contractor claims. Bid materials clearly stated contractors would receive no additional compensation for excavation of rock. Bid materials also stated, "If it becomes necessary for a utility company, through emergency purposes or because of unforeseen conditions, to repair, reconstruct, relay or relocate its structures within the Contract area, after the Contractor has commenced its work, then the said utility company and the Contractor shall make suitable arrangements to overcome such interference. No compensation will be allowed the contractor for the disruption of its work."

During the period between solicitation and acceptance of bids, Metro issued several addendums to each contract. Included in the addendums were revisions that shifted the responsibility for rock excavation and utility delays to Metro. However, Metro did not remove the conflicting language from other contract documents. We identified, based upon the change order title, at least 13 change orders totaling over \$1.5 million for additional excavation of rock and 30 change orders totaling over \$40.5 million that were, at least in part, due to utility relocation delays. There were likely other change orders that included similar

additional charges. In the future, Metro should ensure the bid documents and construction contracts do not include conflicting requirements.

If Metro had taken the actions discussed above, construction companies submitting bids could have based those bids upon more complete information and construction and utility relocation schedules could have been better planned and coordinated. While the initial bids would have almost certainly been higher, a significant portion of the final cost of the project could have been reduced by eliminating the additional costs incurred for delay, disruption, and acceleration of work. These additional costs will almost certainly impact the future operations and financial stability of Metro.

WE RECOMMEND the Metro:

- A. Closely monitor and take appropriate action to ensure the long-term stability of the agency's financial condition.
- B. Ensure preliminary and final engineering cost estimates are determined, and sufficient estimated funding exists before committing to future construction projects. Metro also needs to ensure design documents are complete and functional prior to issuing requests for bids for future construction projects.
- C. Retain the services of a project management oversight consultant prior to the completion of the final design for any future significant construction projects.
- D. Ensure major utility relocations are completed, to the extent possible, prior to the issuance of the construction contract notice to proceed.
- E. Solicit bids on the unit price/quantity bidding basis for future complex construction projects.
- F. Ensure bid documents and construction contracts do not contain conflicting requirements.

AUDITEE'S RESPONSE

- A. *We are well aware of the absolute need to monitor the long-term stability of our financial condition. In this regard, it is important to understand that Metro cannot unilaterally take action to ensure its financial condition. The local elected officials and the stakeholders must assist and support Metro's financial solvency. Metro does not have taxing authority, and other than fare box revenues, is dependent upon the city, county, state and federal government for resources.*

Metro continuously evaluates financial condition and forecasts cash flow. The State Transportation Improvement Program requires grant recipients to file operating and capital forecasts as a condition of receiving federal and state grants. These twenty-year long-range plans indicate both operating and capital cash flow deficits. As early as

2002, Metro's President and CEO advised the local stakeholders that Metro could build the Cross County project, but would face significant operating deficits once it went operational. Furthermore, in the fall of 2006 and the spring of 2007, Metro's President and CEO and the St. Louis County Executive requested funding from the State of Missouri to delay the impending crisis. The requested legislation never materialized.

Metro staff will continue to forecast operating and capital funding requirements and make the necessary service adjustments and take any other required cost savings initiatives to balance the budget.

We concur with the recommendation with the caveat that Metro can only do so much and that the regions other stakeholders must provide the necessary resources to operate and maintain our system.

- B. *The decision to construct the Cross County Extension project was not made by Metro but rather by the regional elected officials serving as members of the East West Gateway Council of Government (EWGCG) Board. Once the project was approved by the EWGCG Board, the project was transferred to Metro for implementation. The \$404 million conceptual (10% design effort) cost estimate developed by EWGCG was based on 1999 dollars. Preliminary (30% design effort) and final (100% design effort) cost estimates were determined at design milestones by Metro. The \$550 million preliminary cost estimate included the factor for inflation to the middle of construction, community requested changes and refinement to the design. Industry standard sets the initial project budget at the 30% estimate (\$550 million).*

Metro maintains a small engineering staff to manage the regular capital program. When a MetroLink extension project is authorized, Metro has traditionally hired outside consulting firms to manage the project and perform the design and construction management. The consulting team identified registered professional engineers that had the responsibility for developing the design for the project. Metro staff performed numerous design reviews and developed thousands of comments on the plans during the design phase. Ultimately, Metro relied on the final drawings, sealed by a registered professional engineer, as being complete when they were issued for bid. Metro concurs with the recommendation to ensure that the design documents are complete and functional prior to issuing requests for bids for future construction projects.

- C. *The FTA defines oversight as a continuous review and evaluation of grantee and FTA processes to ensure compliance with statutory, administrative, and regulatory requirements. Hiring a Project Management Oversight Consultant (PMOC) is not a requirement for a project that does not use federal funds. Metro maintains a separate Project Controls department that monitors project schedule and budget, thereby providing the independent review, in house.*

The original budget from East-West Gateway did not include a line item for a PMOC. The reason Metro hired a PMOC for Cross County was to assist in the transition of the project control after Metro terminated the consultant management team. As this type of

project management restructuring was extreme, it was determined that some outside assistance would be beneficial. Typically, the PMOC is hired by the funding source (for example, the FTA), not the implementing Agency (Metro). However, based upon the circumstance and complexity of a future project, Metro will consider any and all options.

Never the less, Metro, at its discretion, consistent with best practices is open to all options including retaining the services of a PMOC. Based upon our comments above, we concur with the recommendation.

- D. Metro understands and agrees that it is desirable to have all major utilities relocated prior to the start of construction. However, schedule pressures and cost/benefit analyses can lead to the issuance of construction notices to proceed prior to the complete relocation of all utilities. This is not an unusual practice. This decision requires the proper schedule analysis is performed and relocation agreements are addressed to ensure a reasonable belief that the relocations will take place prior to delaying any contractors.*

Section IX Article 3.11 of the consultant contract assigned the responsibility of identifying and managing the relocations of utilities to the consultant team. Additionally, Section IX, Article 1.3 assigned the responsibility of developing and maintaining the overall schedule to the consultant team.

Based upon our comments above, we concur with the recommendation.

- E. Every project has the distinct characteristic that lends itself to a specific procurement approach. There is no one best approach for all projects. Metro does scrutinize each project to determine the best bidding method based on guidelines set forth by the funding source, best practices and engineering judgment and experience.*

Metro worked with the consultant team to recommend and develop the procurement approach for the Cross County project. This recommendation was derived from the evaluation of professional engineers with significant experience in transit projects. In future projects, Metro will continue this practice. Additionally, Metro will consider the use of unit price/quantity bidding as a viable alternative based upon the nature and complexity of the project.

- F. The project team, comprised of both consultants and Metro staff, reviews all project documents on numerous occasions throughout the design process to detect any errors and/or conflicts. It is the responsibility of the designer to identify and correct any such discrepancies. If conflicts do occur in the final set of plans, the contract contains language to direct the contractor to the correct interpretation of the associated clause. Section 00700, Article 1.06 "Intent of the Contract Documents" provides for the precedence for resolution of such conflicts, discrepancies and inconsistencies.*

Metro already follows this practice, and will do so on future projects.

Metro did not always require a record of negotiations to be maintained when processing change orders and approved some change orders containing questionable items. Metro, in response to problems encountered during construction, authorized change orders for acceleration of the remaining work by contractors that included significant amounts for premium time and inefficiencies.

There were 1,636 construction change orders totaling \$147 million that had been approved as of April 30, 2008. Change order files generally included the actual change order, change order approval forms, copies of the contractor's line item breakdown supporting the change in costs, subcontractor line item cost breakdowns, independent cost estimates prepared for or by Metro, construction drawings, and other documents providing a history of the change from the original design to completion. We reviewed copies of 115 change orders totaling over \$104 million. Ninety-nine of the change orders tested cost over \$250,000 each, 14 change orders tested authorized payments less than \$250,000 for delay, disruption and or acceleration of work, and 2 tested were other types of change orders.

The following items are examples of the concerns noted.

- A. Change orders were approved without a detailed record of negotiation between the contractor and Metro. The negotiation for Metro was initially handled by the resident engineer assigned to the particular contract and sometimes a higher level supervisor also participated in the negotiation. Metro's former general counsel told us negotiations were a give and take process through which the contractor made claims for additional compensation and Metro determined which costs they would accept or reject. Negotiations continued until both the contractor and Metro agreed to the amount to be paid. The general counsel indicated that as part of the negotiation process, Metro may accept a higher cost for a particular item or line item than they determined might be reasonable in exchange for the contractor eliminating or reducing amounts claimed for other items of work.

Without a detailed record of negotiations, the supporting documentation was not always adequate to assess the propriety of the approved change order amounts. The basis for amounts that were included in the change order could generally be determined from other supporting documentation, such as independent cost estimates, revised project change requests, memorandum and letters, detailed spreadsheets, lists of materials with costs, supplier letters, detailed work schedules that identified labor and equipment hours, contractor daily work reports or timesheets, and similar documents supplied by subcontractors. The amounts initially claimed by the contractor were often negotiated to a lower total amount. We also noted that some claimed amounts were withdrawn and submitted as part of another change order reducing the agreed upon cost of the change order being negotiated. Metro generally maintained documentation for the basis of the

approved amounts but did not always document specific claim amounts that were "given up" by the contractors.

In most instances when a record of negotiations was included in the change order documentation, the record contained general comments about the final negotiated price and lacked additional detail of the "give and take" bargaining. Metro should ensure detailed records of negotiations over contractor claims are maintained for all change orders.

- B. Some change orders included charges for items that conflicted with contractual provisions, did not have adequate supporting documentation, should not have been included, were incorrectly calculated, or did not include proper credits for deleted items.
1. A change order was issued to compensate the contractor for additional costs and inefficiencies for using specialized drilling equipment to work around overhead utilities. The change order included payment of \$25,355 for a drilling rig crew and equipment charges when the equipment was not operating due to breakdown. Metro should not pay costs arising due to equipment breakdown.
 2. Metro approved a change order for the cost escalation of steel that was not installed according to the original project schedule. The installation of the steel had been originally scheduled for the period of April 2004 to November 2004. The adjusted schedule for installation was August 2004 to February 2005, a delay of approximately 4 months. The contractor stated they attempted to obtain the steel according to the original schedule but due to a nationwide shortage, steel mills were unable to produce the reinforcing bars and flat steel to meet the project schedule. The claim indicated that steel prices had escalated much faster and higher than could be reasonably predicted. Metro agreed to the steel cost escalation claim in the amount of \$176,492 (excluding contractor's markup for overhead and profit).

The contractor's claim indicated the base steel price used when calculating the bid was \$260 per ton and that price was good through March 2004 with a \$20 per ton cost increase every six months thereafter. We noted several discrepancies when examining the calculation of the steel escalation cost:

- Claim documentation included copies of the original bid from one of the main steel suppliers and the "base bid" price per ton appeared to range from about \$380 per ton up to \$455 per ton depending on lot quantity and type of steel, not \$260 per ton as indicated by the contractor.

- Claim documentation indicated an escalation factor totaling \$178 per ton had been included in the original bid price of the steel. This escalation factor was applied to periods from June 2003 through March 2004, even though the contractor indicated the bid price was good through March 2004.
- The quantity of steel listed as included in the base bid was 771 tons while the steel escalation was figured on 995 tons. The tonnage increased through other change orders and those change orders should have incorporated more current steel pricing at the time approved.
- Ten tons of steel were installed in December 2005 that had been not included in the original bid. The cost escalator for this steel was \$635 per ton and when added to the base bid of over \$380 per ton, the contractor was paid at least \$1,015 per ton. However, we noted the independent cost estimate for another change order approved in the same month included steel prices of \$780 per ton. As a result, it appears a significant portion of the cost escalation factor for steel did not actually occur.

We recalculated the steel escalation factor and estimated the contractor was overpaid about \$134,000 for this item. In addition, there were eight other line items in the change order that included steel escalation costs totaling \$339,481 involving 3,425 tons and the escalation was calculated using the same method the contractor used as described above. Further, many other change orders were issued that included steel escalation costs and contractors used different methods to estimate the additional costs.

3. While excavating for a tunnel, a contractor determined the actual depth at which rock was found was about 2.81 feet higher than the depth indicated by the geological boring logs in the bid documents. Metro authorized a change order that included \$173,175 for removal of 2,309 cubic yards of rock at \$75 per cubic yard. The subcontractor that excavated the "unforeseen" rock suggested that Metro eliminate removal of the last 2 foot of rock required to reach the planned depth of the track bed because the track bed was now on solid rock making further excavation unnecessary. Metro agreed and a change order was issued to obtain a credit of \$57,750 for deletion of 1,650 cubic yards of rock at \$35 per cubic yard.

In this instance, Metro agreed to pay for the excavation of extra rock but then received credit at a much lower rate for the rock that did not have to be removed. By issuing two change orders and not obtaining the proper amount of credit, Metro incurred net additional costs of about \$66,000 (1,650 cubic yards at \$40 per cubic yard). Further, the construction

management contract technical specifications indicated Metro was not responsible for paying for the excavation of additional rock.

Metro engineers reviewed the concerns above and agreed that the handling of these items was questionable.

Under Section 700, Article 1.10 of the Standard Project Requirements Manual, the Agency has the right to examine books, accounting records, and documents related to the cost, pricing, negotiation, or performance of the contract including any change or modification. Metro indicated that they plan to perform or retain specialists to perform an audit of each contractor upon project completion. Metro should ensure change orders are reviewed to determine change orders are in compliance with contract terms, and applicable credits were obtained. In addition, Metro should seek reimbursement from contractors as overpayments are identified.

- C. During the bidding process, Metro required aggressive work completion schedules that included short periods of time ranging from 3 to 24 days between the completion of the construction of the track bed and start dates for trackwork and rail systems. When the various delays and disruptions experienced on the Cross County Project and major changes in the scope of work caused the schedule to slip, Metro requested acceleration of work to avoid reimbursing contractors for additional delays. Acceleration activities included working ten hour days and/or working six days a week resulting in the payment of overtime and in some instances double time. Extended periods of overtime resulted in decreased productivity. Other techniques included increasing the number of employees in individual work crews and/or increasing the number of work crews and related equipment. One contractor indicated this resulted in an overcrowding of the work space and contributed to declining productivity and an increase in idle time for workers and equipment.

One change order included about \$293,000 to accelerate construction by shifting 13,221 man-hours from regular time to overtime in an effort to meet the revised contract completion date. This change order was associated with another change order compensating the contractor because all hours were estimated to be 15 percent less efficient due to declining productivity from overtime. This change order totaled over \$640,000, making the total cost for using overtime in this instance more than \$933,500. Using a standard labor rate of \$44.32 per hour, the charges for acceleration using overtime and related inefficiencies could have paid for an additional 21,062 labor hours at regular time. In this instance, the cost of premium time and the related inefficiencies had to be compared to the costs for extended general conditions at over \$10,000 per day to the construction contractor and over \$11,000 per day to the follow-on systems contractor that would be incurred if acceleration was not used. In a subsequent change order, the systems contractor also received compensation for inefficiencies related to overtime and for inefficiencies for adding additional crew members to accelerate project

completion and to reduce further overtime. We noted 27 change orders totaling over \$4.7 million were issued for acceleration and almost all of the 38 change orders totaling over \$41 million issued to compensate contractors for delays and disruption included some factor for acceleration and premium time. It appears likely that if Metro had used a less aggressive construction schedule they could have avoided some of the costs and inefficiencies arising from acceleration activities.

For future construction projects, Metro should ensure adequate intervals exist between major phases of construction projects. Furthermore, it appears additional analysis of the use of acceleration practices should be done to ensure the benefits significantly exceed the costs of attempting to change the completion schedule.

WE RECOMMEND the Metro:

- A. Ensure detailed records of negotiations are documented for all change orders.
- B. Ensure change orders are reviewed to determine and ensure compliance with contract terms, and applicable credits were obtained. In addition, Metro should seek reimbursement from contractors as overpayments are identified.
- C. Ensure adequate intervals exist between major phases of any future construction projects, and evaluate the costs and benefits of using acceleration practices.

AUDITEE'S RESPONSE

- A. *Records of negotiation are a required field in the change order documentation prepared by the Resident Engineer and are included in most change orders. Frequently, the Resident Engineer will concur with the change order submitted by the contractor, thereby eliminating the need for any negotiations. Other times, the actual negotiations occur over the exchange of edited cost proposals without an actual face-to-face negotiating session. In these cases, the history of the negotiations is documented in the supporting paperwork.*

Metro will continue to require the completion of the Record of Negotiation field in the change order documentation. Enhanced direction has been given to the Resident Engineers to document the reason(s) for the lack of a negotiating session or to summarize any types of exchange that led to the final change order price.

- B. *Metro's Resident Engineers are required to review all change order items to ensure compliance with contract terms. Credit change orders are to be based on bid supporting documentation, when possible. Other credits are negotiated with applicable supporting documentation being supplied from the contractor. The contractor is notified that any documentation submitted to justify costs may be audited.*

On August 8, 2008 Metro began the necessary procurement process to select an independent external audit firm with construction experience to perform these examinations to determine if overpayments were made and seek subsequent reimbursement.

Metro has already acted on this recommendation.

- C. *Section IX, Article 1.3 “Project Schedule” of the consultant contract requires the consultant to develop and manage the project schedule. Metro and the consultant team evaluate contract durations and intervals between contracts as the overall project schedule is developed using engineering experience and scheduling principles. Metro believes that the schedule developed for the Cross County Project was achievable. However, the numerous delays stemming from utility relocations and other project issues proved to be too great to overcome.*

Once a project falls behind schedule, a recovery plan is developed. Schedule recovery frequently requires accelerated work by the contractors. Project management evaluates the overall project schedule to determine the maximum benefit to be gained by accelerating a contractor. The associated cost of the acceleration is thoroughly analyzed against the benefit to the project prior to execution of the change order. The audit states that “overcrowding” of the work space often resulted from acceleration. Metro monitored the work plans closely to ensure overcrowding did not take place. Contractors did attempt to claim that it occurred, but Metro did not accept these claims.

In future projects, Metro will ensure adequate intervals between contracts and continue to evaluate and document the benefits of using acceleration practices.

3. Cross County Extension Project Change Order Control System

Metro did not ensure the project change order control system for the Cross County Extension Project was properly utilized, and did not require the cause of the change to be identified and recorded through the use of reason codes as change orders were processed. Metro did not perform any analysis of the reason codes that may have resulted in an earlier identification of significant and developing problems on the project.

Change orders are used to compensate a contractor for costs of additional work arising from changes to the original plans that were unanticipated or unforeseen by the engineers or architects. Change orders may also be necessary due to errors or omissions in the original design. The Federal Transit Administration has developed project and construction management guidelines¹ that recommend the establishment of a change order control system that identifies and records the cause of the changes. Those guidelines also indicate that in association with a change order control system a cost

¹ Federal Transit Administration - Project & Construction - Management Guidelines (2003 Update) Appendix A - Cost Estimation Methodology is available at www.fta.dot.gov.

recovery procedure should be developed and utilized if the cause of the change is errors and omissions on the part of the design contractor.

Change orders for the Cross County Extension Project were accompanied by change order approval forms signed by a resident engineer and the appropriate level of Metro management, and included an explanation and justification for the change. Records of change orders and electronic copies of supporting documentation related to the Cross County Extension Project were available in Metro's project management software system. The system includes a field for the reason the change order was issued. The reason code was to be assigned by the resident engineer as the change order was being processed for approval. There were seven standard reason codes with the following descriptions:

Metro (Metro Request) - Usually assigned when the Metro Construction Group, Maintenance, or Operations recognized the need for a change in the design to facilitate maintenance or operations.

Error and Omission - Assigned when the change was recognized as an error and or omission on the original design that required correction for the system to operate as planned.

Planned - Assigned when it was recognized during construction that a different contractor would better construct a work element. This may have been to avoid extending one contract with associated additional overhead costs or because a different contractor possessed skills that the assigned contractor lacked.

Design Change - Assigned when the design was enhanced or a clarification was required. This code was normally used for minor changes and clarifications at little or no cost.

Differing Site Condition - Used when subsurface conditions differed materially from those indicated on the plans or described in the specifications.

To Be Determined - Used when the cause of the change was unclear but the change was necessary to maintain the project's completion schedule.

Third Party - Used when the change was required by a code and or authority to meet the requirements of the affected third party. These changes were needed due to a utility, municipality, county, or state requirement.

During audit fieldwork in 2006, we reviewed documentation of change orders issued to the various contractors who performed the construction of the project. As of December 2005, reason codes had not been assigned for 504 of 985 approved change orders. These 504 change orders represented about \$64 million of \$113 million in approved change orders. After we brought the significant lack of reason codes to the attention of the former Senior Vice-President of Engineering, Metro engineers assigned reason codes for the 504 change orders and revised some reason codes that had been recorded by the

terminated design and management firm. Further analysis showed that of 383 change orders approved prior to the design and management firm's termination in August 2004, only 75 (20 percent) had reason codes assigned.

When we resumed audit fieldwork in 2008, we updated our information regarding change orders. As of April 2008, 1,636 change orders totaling over \$147 million had been approved from the inception of the project. However, Metro again had not assigned reason codes for 320 of these change orders. The following table indicates the approved construction change order activity by reason code:

Reason Code	Number	Amount
Errors & Omissions	407	\$ 49,869,499
Third Party Request	229	35,230,610
Differing Site Conditions	188	18,366,570
Planned	36	15,046,175
Metro	301	6,961,185
Design Change	137	6,793,698
No Reason Code Listed	320	12,009,421
Other (2)	18	3,273,757
Total	1,636	\$147,550,915

(1) Information as of April 30, 2008, Construction contracts only

(2) Change orders assigned to be determined or other codes

While it was originally the contractual responsibility of the design and project management firm to maintain the project tracking system, Metro did not ensure the reason code information in project tracking system was being maintained, updated timely, and properly monitored. Neither the project management firm nor Metro initially produced periodic change order reports listing reason codes or performed any analysis of reason code information. In April 2004, Metro established a spreadsheet to track change order activity including Metro's assessment of which party, Metro or CCC, was responsible for the additional costs related to the change order. It appears this tool was established to prepare for future litigation. Had Metro required the reason code information to be maintained in the early stages of the construction project, tested the reliability of the information by reviewing change order justification, and performed an analysis of the change order reason codes, Metro may have been able to better monitor the costs of the extension project and identify and resolve significant and developing problems earlier.

WE RECOMMEND the Metro, for any future construction projects, ensure change order reason code information is maintained for all change orders and conduct periodic analysis of change order information in an effort to better monitor project costs and progress.

AUDITEE'S RESPONSE

The Resident Engineer (RE) who is directed to develop and implement the change order may not know the underlying reason for the change order (CO) which may stem from design contract issue, real estate issues or intergovernmental agreement issues.

Often, the RE would be a member of the consultant staff. Therefore, the RE would be less likely to assign a reason code to a change order that would implicate their firm as being responsible for a costly design error.

As stated in the audit, Metro maintained a separate change order management system that tracked all change orders and assigned responsibility. This document included significantly more information than the reason code field and was administered exclusively by Metro personnel. Metro agrees with the intent of the recommendation, but disagrees with the specific use of the reason code field as the only effective way to control change orders. Metro believes this is an engineering judgment call that must be made by Metro and that its current practice of maintaining a separate management system to track the change orders is superior to the reason codes and has served Metro well for many projects.

4. Cross County Extension Project Betterments
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Metro did not enter into written agreements before proceeding with construction, design changes, or issuing change orders for some betterments. In addition, some agreements did not specify which party would be responsible for cost overruns. As of April 2008, Metro has unrecovered costs of nearly \$4 million incurred in the construction of betterments.

The Cross County Extension Project acquired public right of ways and easements from several local governments, the Missouri Department of Transportation (MODOT), and private entities, such as Washington University. As the project was being designed and built, some of these entities requested design changes and entered into funding agreements, referred to as betterments, to compensate Metro for some or all of the additional project costs. In total, Metro incorporated 16 betterments into the project.

The following table summarizes the betterments activity as of April 2008.

Cross County Betterments

Entity	Original Agreement	Final Cost	Invoiced	Due
MODOT	\$ 14,018,432	14,018,432	14,018,432	0
Brentwood	6,201,342	8,456,880	8,456,880	1,673,480
St. Louis County	5,775,126	5,939,194	5,939,194	176,135
THF Maplewood (1)	1,859,836	1,859,836	1,859,836	0
Clayton	1,585,985	3,302,267	3,302,267	1,716,282
Washington University	288,300	313,300	288,300	188,300
Richmond Heights	35,000	35,000	35,000	35,000
Maplewood	15,000	15,000	15,000	0
City of St. Louis	100,000	100,000	0	100,000
Total	\$ 29,879,021	34,039,909	33,914,909	3,889,197

(1) THF Maplewood South Development, LLC for Bridge 5.44 over Hanley Road

For the amounts due, Metro officials indicated the city of Clayton and St. Louis County have indicated they are not responsible for the cost overruns. The city of Richmond Heights claimed the damage to their streets far exceeded the cost of the betterment and Metro offset the amount due. The city of Brentwood established a transportation development district which plans to issue additional bonds in about 2010 for repayment of the amount due. Metro expects full payment from Washington University and the city of St. Louis. Written agreements were not entered into for some betterments and other betterments had written agreements that did not contain provisions for scenarios involving cost overruns or related payment schedules. The following are examples of betterments that should have been better negotiated and documented.

- The MODOT betterments totaled over \$14 million and included lowering a section of track that passed under Interstate 64 at the request of MODOT and mutually agreed changes to the track alignment along Interstate 170. Both Metro and MODOT officials indicated that a mutual understanding regarding the design, cost, construction, and settlement for these betterments was reached before work was initiated. The statewide transportation improvement plan contained funding for these betterments. Under a formal agreement signed in September 2001, MODOT committed \$300,000 for redesign of the project. Metro and MODOT amended the preceding agreement in April 2007, nearly 8 months after the initiation of revenue service, with MODOT agreeing to fund an additional \$9.7 million and transfer right of way valued at \$852,000 related to lowering the alignment. In June 2007, nearly 10 months after the initiation of revenue service, Metro and MODOT entered an agreement under which MODOT would provide \$1.5 million and land valued at \$1.67 million for track realignments, utility relocations and a 0.44 acre commuter parking lot near Interstates I170 and I64. The MODOT payments were received on April 5, 2007 totaling \$11.5 million in cash with the remaining \$2.5 million in land, rights of way and easements.
- The betterment agreements for changes to the Brentwood Boulevard and Forest Park Parkway with St. Louis County and the city of Clayton did not include

provisions detailing the responsibility for cost overruns. The original estimated cost of this betterment was \$1.28 million; however, in June 2005, Metro determined the actual cost to be nearly \$3.2 million. Metro indicated that both the city of Clayton and St. Louis County have rejected repeated attempts to resolve the amounts due.

- A betterment agreement with the city of Brentwood to incorporate a bridge extension had an estimated cost of \$6.2 million. The written agreement required the city to be responsible for cost overruns. The city has paid \$6.783 million; however, the total cost of this betterment project was over \$8.4 million. Metro indicated the city has located a future funding source.
- Metro entered into a written agreement with Washington University under which the university paid \$125,000 toward the cost of redesigning the entrances to the Skinker Station. The agreement required Metro to pay for increased construction costs totaling \$384,045 related to the design change. Metro and the university also had not finalized a written agreement for changes to the Washington University pedestrian bridge. Metro has billed the university for \$163,000 and identified an additional \$25,000 in costs that they have not billed.

In any future projects, Metro should ensure written funding agreements for betterments are finalized before proceeding with changes in design and issuance of change orders. Metro should also ensure these written agreements specify parties responsible for cost overruns and establish terms for when payments are due. Furthermore, efforts should continue in an attempt to recover remaining costs related to the abovementioned betterment projects.

WE RECOMMEND the Metro ensure written betterment funding agreements are finalized before proceeding with changes to construction projects. The funding agreements should specify those parties responsible for cost overruns and establish payment schedules. Metro should continue to negotiate with the entities regarding unrecovered costs related to betterment projects included in the completed Cross County Extension Project.

AUDITEE'S RESPONSE

Metro will only enter into formal construction funding agreements with outside parties if the party agrees to cover all costs associated with the contemplated improvement. Metro is aggressively pursuing negotiations with all named parties for the recovery of outstanding balances on the Cross County project.

It is important to understand that these betterments were the result of project elements required by the municipalities, St. Louis County, and Washington University. Metro agrees that these added costs should be recovered and is taking action as outlined in the following chart:

<i>Description</i>	<i>Action Plan</i>
<i>Brentwood</i>	<i>Brentwood has agreed to honor the agreement in place. Payment is scheduled for 2011.</i>
<i>St. Louis County</i>	<i>Metro has discussed this obligation with the County. The County does not agree that this is their obligation. Metro will continue its efforts with St. Louis County for recovery of costs.</i>
<i>City of Clayton</i>	<i>Metro has issued a demand letter, and ongoing dialogue is underway between the CEO of Metro and the City Manager.</i>
<i>Washington Univ.</i>	<i>Agrees to reimburse Metro in full.</i>
<i>City of St. Louis</i>	<i>Agreement reached to offset outstanding obligations.</i>

Metro has been responsibly pursuing these outstanding obligations and will ensure that thorough written agreements for betterments are in place in all future projects.

5.	Legal Costs
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Metro paid over \$21.4 million for legal, expert witness, and other expenses related to the Cross County Collaborative lawsuit. Metro's internal audit unit performed a review of the legal expenses following the conclusion of the lawsuit and questioned nearly \$700,000 in charges from four firms. Those firms provided some additional documentation, one firm offered a discount of \$47,148, and the questioned costs were settled for a total of \$194,370 in credits and repayments. In addition, Metro did not enter into contracts with two firms for which the charges exceeded \$6 million.

We obtained an understanding of the work performed by the internal audit unit and also reviewed the invoices of the four firms for which charges had been questioned. We also tested invoices of other firms providing legal services and concluded that the procedures and criteria used by the internal audit unit to identify the questioned charges were adequate and consistently applied.

Prior to payment, the invoices for legal charges had been approved by Metro's general counsel and/or CEO. Questionable items included invoices that lacked sufficient detail, explanation, or documentation of work performed, an unreasonable number of hours charged for one individual, expenses for travel, meals, and hotel which exceeded usual and customary rates and/or federal reimbursement rates, unnecessary travel, interest, or duplicate charges, and charges in excess of contracted rates. The following table indicates the amounts of questioned and recovered charges for the four firms.

Firm	Questioned Charges	Recovered Charges
1	\$ 514,876	3,162
2	75,190	47,469
3	77,314	77,314
4	29,168	19,277
Total	\$ 696,548	147,222

In addition to the recovered charges, one firm granted Metro a 10 percent discount, totaling \$47,148, on the remaining balance due. In the future, Metro should ensure invoices for professional services are adequately reviewed and charges are in accordance with contracted rates and terms before payment is made.

Metro also did not enter into an agreement with one firm that was paid nearly \$2.4 million, and only prepared a draft agreement for the services of another firm that was paid over \$3.6 million. Metro should ensure professional service contracts are in place so that the duties, rates, conditions, and terms of the services to be provided are clearly delineated.

WE RECOMMEND the Metro ensure invoices for professional services are thoroughly and adequately reviewed and charges are reasonable, proper, and in accordance with contracted rates and terms. In addition, Metro should ensure written agreements are entered into for all professional services.

AUDITEE'S RESPONSE

Metro currently reviews invoices for special counsel and expert witnesses. Metro will require that written agreements comply with Board Policy.

6. Public Meetings and Public Records Policy

Metro has not complied with board policies regarding public meetings. Metro did not record the votes to go into closed session, did not specify topics to be discussed in closed session, and did not record individual member votes in closed session. Metro also did not report the actions taken in closed board meetings in the open session and has not established procedures to periodically review closed session minutes to determine the necessity for continuing confidentiality.

A. Metro's Public Meeting policy, Section 10.070 of the board policy book, indicates, "The agency shall be guided by the open meeting laws of Missouri or Illinois pertaining to the opening of closed minutes and votes, as if such laws were applicable to the Agency." Chapter 610, RSMo, sets forth the procedures for conducting open and closed sessions, records that must be kept, and when closed records shall become open records. Chapter 5 of the Illinois Compiled Statutes Section 120 also addresses conduct of open and closed meetings.

Although the specific requirements of each state's laws vary, both require individual member's votes to enter closed session to be recorded in open session minutes and restrict discussions in closed session to topics specified in the motion to close the meeting.

Metro did not record the votes of each member to enter closed session, and motions to enter closed session did not cite the specific topics to be discussed or exceptions to the open meeting laws that would permit the closed session.

- B. Metro did not record votes taken in closed session to be by roll call as required by Missouri law. In addition, Illinois law requires a verbatim record of all closed meetings and a record of any votes taken. Illinois law also specifies that no final action may be taken at a closed meeting and the final action shall be preceded by a public recital of the nature of the matter considered and other information that will inform the public of the business conducted.
- C. Metro board policy 10.070 (E) states, "Minutes of meetings closed to the public shall be available only after the Board determines that it is no longer necessary to protect the public interest or the privacy of an individual by keeping them confidential." Missouri law limits the time that certain closed session discussions, minutes, and votes on legal issues, real estate, personnel matters, bids, and contract awards are to remain closed records. Illinois law requires a public body to meet, at a minimum, semi-annually to review minutes of closed meetings and determine that the need for confidentiality still exists as to all or part of those minutes, or should the minutes be available for public inspection. The results of this determination must be reported in open session.

Metro has not developed procedures for periodic review of the closed session minutes to determine the necessity for continued confidentiality or release of all or a portion of the closed minutes for public inspection.

WE RECOMMEND the Metro:

- A. Record the votes of members to go into closed session by roll call, and ensure the motion to go into closed session cites the specific topics to be discussed in closed session and the exceptions to the open meeting laws that would permit the closed session.
- B. Record all votes in closed session by roll call, and report final actions by a public recital of the nature of the matter considered and other information to inform the public, in a manner that protects the public interest, of the business being conducted.
- C. Establish procedures to periodically review closed minutes and release minutes or portions of minutes for public inspection where confidentiality is no longer required to protect the public interest.

AUDITEE'S RESPONSE

- A. *Metro believes based upon advice of legal counsel that we are in compliance with the laws of the state of Illinois and Missouri. However, to clarify this issue Metro will amend Board Policy 10.070 Public Meetings to provide that any motion to go into closed session will state the specific reason for holding such closed sessions.*

- B. *Metro will amend Board Policy 10.070 "Public Meetings" to specifically provide that the minutes include a roll call vote during open session on the motion to go into closed session; to specifically require that the votes taken in closed session will be by roll call; and that such roll call votes will be included in the closed session minutes. The amendment will also provide that discussions and votes in closed session on matters that have become public will be included and reported in the open session portion of the minutes.*

- C. *Metro will amend Board Policy 10.070 "Public Meetings" to provide that General Counsel will review closed session minutes periodically to determine the necessity for continuing confidentiality. The Board Policy amendment will also require that General Counsel will report the results of such review to the Board of Commissioners in open session at a regularly scheduled meeting.*

7. Compensation Issues

The Metro Board of Commissioners has approved and paid bonuses, executive stipends, severance payments, and retroactive raises since 2003 totaling at least \$704,600 to three executive employees who reported directly to the board. The board also approved one time economic bonuses totaling over \$810,000 and granted retroactive pay increases totaling over \$166,000 for salaried employees. In addition, retention incentives totaling \$145,460 were made to 14 employees of the engineering division without explicit approval of the board. The practices of providing these types of additional compensation payments are unusual and questionable in most government agencies. In addition, these practices may violate Article V of the interstate compact under which Metro was established.

- A. 1. Metro entered into employment agreements with the former chief executive officer (CEO) that included provisions for executive stipends or bonuses if the board determined that certain established organizational performance goals, measures, or benchmarks had been met or exceeded. Those goals and measures generally included increasing system revenue; decreasing system expenses; increasing on time performance; increasing ridership; increasing employee diversity; maintaining compliance with the Americans with Disabilities Act; reducing customer complaints; planning and implementing major capital projects including maintaining the project budget, meeting project timelines, and securing project financing; and securing additional funding sources.

Certain members of the board performed the former CEO's annual performance evaluation which included reviewing a report prepared by the CEO indicating whether the established goals and measures had been met or partially met. From 2003 through 2007, the board granted the former CEO the maximum bonus amount allowed. The former CEO received a total of \$160,000 in bonuses; \$25,000 in 2003, 2004 and 2005; \$35,000 in 2006; and \$50,000 in 2007.

As part of the annual evaluation the board also set the former CEO's salary for the year. In 2004, the board delayed the former CEO's annual performance evaluation until November 2004, when the board approved a \$25,000 raise. The board made the raise retroactive to February 2004, resulting in retroactive payments totaling about \$18,750.

In December 2007, the former CEO was provided a notice of termination by the board. Under the terms of his employment agreement he received a severance package which included \$250,000, continuation of benefits including insurance for 12 months with the full cost paid by Metro, full salary for the 30-day notification period, and \$4,800 for one year's auto allowance. He also received \$38,461 for accumulated vacation time of 120 hours and 200 hours of vacation time awarded by the board after the notice of termination was sent. The award of the additional 200 hours of vacation was not a requirement of the employment contract. The former CEO was allowed to make the 5 percent maximum contribution to Metro's 401(k) basic deferred compensation program which resulted in a 50 percent match of \$7,211 by Metro. In March 2008, the board denied a request from the former CEO to be granted an additional 2.76 years of service for the purposes of qualifying for lifetime medical benefits, a benefit granted to Metro salaried employees with at least ten years of service.

2. Metro also had an employment agreement with the former general counsel that included a provision for incentive compensation; however, the provision did not specify limits on the amount of any bonuses and included no performance criteria or benchmarks upon which the amount of the bonus would be based. The board granted bonuses of \$14,000 for fiscal year 2005 and \$20,000 for fiscal year 2006 to this employee. These amounts were paid in January 2007. In fiscal year 2007, the employee was granted a one time economic bonus of \$4,095 shortly after the board granted one time economic bonuses to other salaried employees. The board did not perform an annual performance evaluation for this employee for fiscal year 2007.

In December 2007, the board authorized the chairman to enter into discussions with the former general counsel to mutually terminate employment. Subsequent to that date, the former general counsel

performed limited duties for Metro and was not physically present at Metro headquarters except on rare occasions and continued to receive her regular salary and benefits. In March 2008, nearly three months after the board had authorized discussions regarding termination, the board granted the employee a 5 percent raise totaling \$6,825 annually, made the raise retroactive to July 1, 2007, and issued a notice of termination with a termination date of April 4, 2008. In June 2008, the board authorized final payments to the employee for the retroactive portion of the raise of about \$5,120 and one final bi-weekly salary payment of about \$5,520 for the pay period ended April 10, 2008, a severance payment at the increased annual base rate of \$143,325, continuation of benefits including insurance for 12 months with the full cost paid by Metro. The board also approved payment for 240 hours of additional vacation time totaling over \$16,500 that was not a requirement of the employment contract.

3. The board appointed an existing internal audit employee as interim director of internal audit in July 2006, and increased this employee's annual salary for serving as interim director. The board hired a new director of internal audit in October 2007, and the interim director was returned to her former position and salary. In November 2007, the board granted the former interim director an executive stipend of \$4,000 per month for six months as additional compensation for increased duties assisting in the transition period for the new director of internal audit.

In total the additional compensation granted to the above employees was \$704,600. The board should evaluate the necessity of the above indicated practices.

- B. 1. In August 2006, the board authorized a one-time economic bonus to 456 salaried employees totaling \$810,210. To qualify for the bonus, the employee had to be still employed, and not have received a negative annual performance evaluation in 2005. The minimum bonus amount was \$1,000. The bonus was calculated based on evaluation scores and a comparison of employee's salary to the market range established by a market comparison study. The percentage of salary received as bonus ranged from 1.5 percent to 5 percent. The dollar amount ranged from \$1,000 to \$5,910. In fiscal years 2005 and 2006, a salary freeze was in effect.
2. On August 28, 2007, the board approved a merit increase for fiscal year 2008 averaging 4% to salaried employees with a projected cost of \$1,083,370. The raise was made retroactive to July 1, 2007, or eight weeks prior to the approval date, resulting in approximately \$166,600 in retroactive payments. The lowest raise noted was \$330 per year and the highest raise noted was \$26,875. About 450 employees received a raise

while about 50 recently hired or promoted employees did not receive a raise.

The board should re-evaluate its practices of granting one-time economic bonuses and retroactive raises.

- C. Metro established a retention incentive program in December 2005, to retain engineering employees until the completion of the Cross County Extension project. Employees who worked on the project until their services were no longer required would receive a retention incentive of 15 percent of their base pay upon termination. In April 2006, the program was enhanced to include up to six months of guaranteed employment following the date the employee's duties on the project ended. During the guaranteed employment period, the employees performed various duties within the engineering division. Employees in those positions were allowed to apply for transfer to open or newly created positions within Metro.

Fourteen employees qualified for the retention incentive and received a total of \$145,460 in incentive payments. The retention incentive program was reported to the board as an informational item only. The board did not take any action to approve or disapprove of the plan or the addition of the guaranteed employment provision. The board should re-evaluate the practice of allowing retention incentive programs and should require such programs be submitted to the board for formal consideration.

The interstate compact which established Metro is formalized in Section 70.370, RSMo. Article V of this compact states "The bi-state agency is hereby authorized to make suitable rules and regulations not inconsistent with the constitution or laws of the United States or of either state..." Article III, Section 39 of the Missouri Constitution prohibits any county or municipal authority from granting any additional compensation for service previously rendered. Furthermore, Attorney General's Opinion No. 72 to Pray states, "... a government agency deriving its power and authority from the Constitution and laws of the state would be prohibited from granting extra compensation in the form of bonuses to public officers after the service has been rendered." These provisions question the propriety of Metro's practices of granting additional compensation in the form of bonuses and retroactive salary increases to employees after services have been rendered.

WE RECOMMEND the Metro evaluate the propriety and necessity of the practices of granting bonuses, executive stipends, severance packages, retroactive salary increases, and retention incentives. If any such payments are granted in the future, at a minimum these payments should be formally approved by the board.

AUDITEE'S RESPONSE

Metro's policies and procedures are consistent with best practices, policies and procedures and Missouri law.

Metro agrees that the Board of Commissioners should approve the granting of any such payment to Metro employees. Metro's Board of Commissioners has in fact approved the granting of all payments to Metro employees. Management has always followed the practice of obtaining Board approval for the compensation plan for salaried employees, the overall pay increase granted to salaried employees for fiscal year merit raises, as well as approval for each of the labor agreements that establish pay and benefits for Metro's union workforce. In fact, the Board approved the following payments questioned in the audit, either in Board Policy, or in action relating to the individual payment, or both.

A brief summary follows:

Bonuses - The payments to the President & CEO and General Counsel were provided for in accordance with their respective employment contracts. The Board of Commissioners approved both their contracts and the payments to the President & CEO and to General Counsel.

Executive Stipend - The one-time payment was granted by Board action to compensate an employee for serving as the Acting Director of Internal Audit.

One-Time Merit Payment – In 2006 the Board of Commissioners approved a one-time payment to all salaried employees based on their fiscal year 2005 performance evaluation. The one-time payment was made in lieu of the usual annual merit increase provided for by Metro Policy. This one-time payment was determined to be the most fiscally responsible way of recognizing performance, because the one-time payment did not increase the employee's base pay; therefore Metro did not incur any ongoing costs.

Retroactive Merit Based Salary Increases – The Board approved compensation policy grants the authority for a salary increase based upon an employee's annual performance evaluation. Retroactive payments are necessary because every employee's performance evaluation is due on June 30th and merit based pay raises are effective July 1st. Since the information needed to prepare an objective, performance-based evaluation and corresponding pay increases for all employees takes a considerable amount of time to complete, in fairness to the individual employee the Board approved a policy allowing for calculation of merit pay raises to be retroactive to July.

Retention Incentive - As the end of the Cross County Extension project approached, a number of employees who were essential to the successful completion of the project began to seek permanent employment elsewhere; therefore, the one-time retention incentive program was developed to retain the current employees working until the completion of the project. The Board was briefed on the program prior to its implementation, clearly understood its importance to the successful completion of the Cross County Extension; and, if the Board believed it to be appropriate, could have acted to end the program. Retention or stay bonuses are an accepted business practice in a variety of organizations. Metro believes that this approach was in the taxpayers best interest and is not a practice for which Metro should be criticized.

The Auditor states that this practice may violate Article V of the Interstate Compact under which Metro was established. Metro did not violate Article V of the Interstate Compact. The Metro

Board of Commissioners sought legal advice regarding incentive compensation for Agency employees. Based on a thoroughly researched opinion, which cited relevant case law in both Missouri and Illinois, counsel opined that the payment of such incentive compensation did not violate the constitution of either Missouri or Illinois.

8.	Questionable Expenditures
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Metro expended at least \$60,906 in fiscal year 2007 for food, gift cards, retirement gifts, employee incentive and driver competition awards, and other non-essential purchases. During fiscal years 2003 through 2005 Metro expended at least \$408,000 for similar items.

- A. We obtained Metro expenditure records for fiscal years 2003 through 2005 and reviewed expenditure descriptions and vendor names for expenditures that did not appear to be prudent, reasonable, or a necessary use of funds or essential to Metro's operations. Only about 10 percent of the 2003 through 2005 records included descriptive words, such as gift or award in the description field. As a result, it is likely that additional questionable expenditures were incurred but were not noted by our audit procedure. After we resumed our audit in February 2008, we performed similar procedures for fiscal year 2007 expenditures.

We identified questionable expenditures, including contributions, food, employee gifts and awards, and expenses for holding annual driver competitions or rodeos. Overall, Metro spent at least \$60,906 in fiscal year 2007 and over \$408,000 in fiscal years 2003 through 2005 on items and services that did not appear to be prudent, reasonable, necessary, or essential uses of funds, as noted in the following table:

Questionable Expenditures		
Category	2007	2003 to 2005
Contributions/Dues	\$ 14,300	121,920
Food	14,052	67,220
Gifts and Awards	16,587	96,276
Rodeo	14,526	100,750
Other	1,441	22,030
Total	\$ 60,906	408,196

We noted the following examples:

- 1. Metro paid dues and made additional contributions to a non-profit regional economic development agency that in part supports political lobbying efforts and is influential in regional and state politics. That organization's

membership brochure indicated 10 percent of the funds are non-deductible lobbying expenses. Metro indicated the dues and contributions are paid from the business enterprises funds and not from transit funds. Payments to the regional economic development agency totaled \$136,220.

2. Metro purchases food and catering services for a wide variety of meetings, dinners and award banquets, including food for meetings of the board of commissioners, cakes, donuts or snacks for employee celebration days, driver recognition dinners, rodeo participants, attendees and judges, Christmas/holiday luncheons, labor negotiations, attendance at a recognition dinner for a member of the board held by an outside entity, and subsidized luncheons for women and ethnic celebrations. The amounts listed do not include foods purchased with petty cash funds, procurement cards, corporate cards, or meals recorded on employee expense accounts. Food purchases totaled \$81,272.
3. We noted expenditures totaling \$112,863 for gift cards, awards, and retirement gifts. Metro has established several employee incentive programs and rewards employees for good performance by giving them gift cards, cash prizes, or other gifts and by providing food and incurring other expenses for employee award meetings and other functions and gifts at retirement. Metro purchased gift cards and other items, such as retirement watches, plaques, and personal exercise equipment as incentives for employees to participate in volunteer, safety, or employee wellness programs. Employees who volunteered to work outside of normal work hours as ambassadors or public information assistants during public events were given gift cards ranging in value from \$10 to \$25 per shift. Those employees were also granted compensatory time for the hours worked.

Employees within the transit division could participate in various maintenance team and driver competitions and earn points for meeting certain criteria. Monthly winners would receive \$25 to \$100 gift cards and many also received a day off with pay. Two employees were given gift cards of \$500 each for their efforts in remodeling an office/storage area at the Downtown St. Louis airport. Employees of the Arch business enterprises unit were given gift cards if they referred a potential new employee and that new employee continued to work for more than a minimum period of time. Employees of the Call-A-Ride unit were given gift cards for receiving an "extra mile" award based upon outstanding customer service. Those awards ranged from \$25 to \$150. Call-A-Ride also had a monthly raffle drawing for ten \$50 gift cards and employees who had perfect attendance, no accidents, no complaints, and no disciplinary reports were entered into the raffle for each qualifying category. There was also a monthly raffle for ten \$15 gift cards with all employees qualifying. If the employee name was drawn and the employee

could produce the previous months employee newsletter they won a gift card. Some ambassador, safety incentive, and Call-A-Ride gift cards could not be accounted for and the records of card recipients for some programs and time periods were not retained.

Metro had a policy that the gift cards, since they were considered to be of negligible value, would not be reported on the employees W-2 forms. Metro indicated they changed that policy and developed a procedure under which most employee incentives would be paid directly through payroll, or at least reported to payroll for tax reporting purposes. After this change the purchases of gift cards decreased, however, the total dollars expended for these types of employee incentives was not reduced.

Metro indicated that nominal gifts and awards for employee incentives are an accepted industry practice and would be allowable under Missouri governmental purchasing guidelines.

4. Metro holds annual local skills competitions or "rodeos" for train, bus, and van drivers and mechanics, and provides awards to the winners and food and clothing items for participants, judges and attendees. Skill competitions for drivers include a technical driving obstacle course, pre-trip inspection, assisting wheelchair passengers and a written test on defensive driving and traffic laws. Mechanical skill competitions include identification of planted defects and a technical driving obstacle course. Local winners received up to \$500 and paid leave and expenses to compete in regional or national competitions. Payments to winners were reported on the employees' W-2 forms. We were able to identify rodeo expenditures totaling \$115,276 over the four-year period.

Metro officials indicated that the safety incentive programs which include the departmental rodeos are operated in conjunction with a self insurance cost reduction program that has resulted in a significant reduction of the number of vehicle accidents and the cost of the employee workers compensation program, and has reduced liability claims due to accidents and rider medical claims.

5. Metro paid \$6,000 in advance to a local theatre company for performances that were to be held in 2004. The performances were supposed to provide disability sensitivity training to Metro employees. After the payment was made, Metro and the theatre company could not agree on the performance dates. After we questioned this expenditure, Metro determined the performances were not held and requested a refund. The theatre company provided two performances in 2006 and Metro estimated a total of 120 employees attended the performances.

Other questionable purchases included two \$600 performances by a local repertory company to celebrate African-American History month, a payment of \$3,120 for mailing costs of a joint advertising brochure prepared for the St. Louis Rams, and \$1,955 for holiday cards.

We requested additional documentation for 41 of the above expenditures and determined Metro did not follow expenditure approval procedures in 2 instances, did not retain sufficient invoice detail in 4 instances, charged an incorrect expenditure classification code in 4 instances, and did not retain adequate documentation of bidding procedures in 3 of 9 applicable instances, and paid sales taxes on one purchase.

Although some of the amounts noted are small in relation to Metro's overall operating expenditures, Metro should ensure all expenditures are prudent, reasonable, necessary, and essential to the operations of Metro. A contributing factor regarding the abovementioned questioned expenditures may have been the lack of formal policies governing these types of expenditures. Metro should establish written policies regarding contributions, food purchases, and employee incentive programs.

- B. Metro has not developed procedures similar to those used by the auditors to review expenditures to identify problematic transactions. Metro's expenditure records include an electronic document archive (EDA) storage and retrieval system in which supporting documentation for expenditures is scanned and available for viewing. Furthermore, the financial records include a description field; however, information describing the goods or services being purchased was often not recorded. Metro also assigns account codes to each line item purchase but the account codes are often too general to identify the specific goods or services purchased.

To take full advantage of financial system capabilities, Metro should require the description field be completed for goods or services purchased, perform periodic reviews of expenditure records to identify problematic transactions, and review supporting documentation to determine compliance with Metro policies and procedures.

- C. In addition to the selective review of expenditures discussed in Part A above, we also performed a random test of 60 expenditure items from the period January 1, 2005 to June 30, 2005, having a line item cost exceeding \$5,000 and the payment was for services, goods, utilities, insurance, leases and rents, and other general expenses categories. We only included expenditures of the transit and agency general companies. We reviewed these transactions and related documentation for compliance with internal control procedures.

Our exceptions included 3 instances where some proper or required approvals were not documented. We also noted one payment to a cleaning services firm in

which the rate billed exceeded the contractual rate by \$528 in one month. After bringing this exception to the attention of Metro officials, Metro determined they had overpaid this amount for 30 additional months, resulting in credits totaling \$15,846.

Our test results indicate the established internal controls procedures over expenditures are generally operating as designed but exceptions do exist. Allowing exceptions to be processed through the expenditure system increases the risk that improper payments could be made. Metro should ensure established internal control procedures over expenditures are operating as designed.

- D. Metro allowed senior management officials to charge travel expenses to corporate credit cards that exceeded Metro's travel policy and federal reimbursement rates used by Metro to question expenses of other vendors. In addition, Metro did not require detailed receipts for some corporate card transactions.

Metro has established a credit card account with a national credit card company and issued cards to thirteen current and five former senior management officials. From October 1, 2006 through March 1, 2008, purchases totaling over \$175,000 in goods and services were charged to these cards. The items purchased included airline tickets, hotels, meals, professional organization memberships, conference fees, and meals served to patrons of certain riverboat cruises. We selected 24 higher dollar transactions totaling nearly \$23,000 for further review. The items selected were 8 meals, 8 hotel charges, 3 airline tickets and 5 miscellaneous purchases. We and noted the following concerns:

- Five receipts totaling \$1,364 were for meals which did not include a detailed list of items served.
- For 2 of the 8 meals purchased, the cost per person exceeded Metro's travel policy and the normal and customary per diem meal allowance established for federal reimbursement rates. These meals totaled \$107 and \$172.
- Four meal receipts totaling \$1,236 did not indicate the number of persons present so we could not determine if federal reimbursement rates were exceeded.
- Seven of eight hotel charges exceeded federal reimbursement rates for the location and time of year for the travel. These charges ranged from \$88 to \$354 per night. The comparable federal reimbursement rates ranged from \$70 to \$201. In total, the hotel charges of \$9,504 exceeded the federal reimbursement rates by \$2,670. Metro's travel policy requires lodging accommodations to be reasonably priced.

Metro had not established spending restrictions, purchase limits, or monthly spending limits for these credit cards. After we made inquiries regarding these

accounts, monthly purchase limits of \$10,000 to \$25,000 were established. Cardholders were required to submit receipts for each transaction on the individual's credit card statement; however, our review of card usage noted some receipts were the credit card charge slip and included no detail for purchases.

As noted earlier in this report, Metro requested refunds and credits from professional services vendors for travel expenses exceeding federal reimbursement rates. It would appear appropriate for Metro to establish similar limits regarding business travel expenses incurred by its management staff.

WE RECOMMEND the Metro:

- A. Ensure all expenditures are prudent, reasonable, necessary, and essential to the operations of Metro. To formalize operating practices, Metro should establish written policies regarding expenditures and practices related to contributions, food purchases, and employee incentive programs.
- B. Require the expenditure records contain a description of the goods or services being purchased, perform periodic reviews of expenditure records to identify problematic transactions, and review supporting documentation to determine compliance with Metro policies and procedures.
- C. Ensure internal control procedures over expenditures are operating as designed.
- D. Revise policies to limit business travel and meal expenses to federal reimbursement rates, ensure credit card expenses comply with those policies, and require detailed receipts to be submitted for all expenses charged to corporate credit cards.

AUDITEE'S RESPONSE

- A. *Metro does, in current practice, ensure that our expenditures are reasonable and prudent and for that reason, takes exception to the State Auditor's finding related to membership in the local chamber of commerce, the Regional Chamber & Growth Association (RCGA). The RCGA provides important services to Metro and provides us with a voice in local, state and federal issues. Metro is an important organization and, as such, should participate to the fullest extent possible in legislative activities affecting our agency. In fact, the State of Missouri (see Missouri Administrative Policy SP-2) acknowledges the importance for state agencies to be involved in organizations that are stakeholders in the mission of agencies. The State of Missouri authorizes these agencies to reimburse or directly pay for these memberships. Hence, Metro finds this expenditure prudent, reasonable, necessary and essential to the operations of Metro.*

Metro believes and recognizes the importance of incentive programs as a means to reward employees for voluntary participation during special events such as Fair Saint Louis. High patronage events introduce the transit system to new or infrequent riders

who need additional assistance. Metro encourages employees to volunteer with taxable gift cards of up to \$25.00, depending on the shift, or other incentives. Hence, Metro finds this expenditure prudent, reasonable, necessary and essential to its operations.

Metro recognizes that providing food and refreshments during training sessions, certain conferences and regular Board meetings promote the efficient conduct of business. Again, the State of Missouri has promulgated policy SP-5 for such expenditures. Metro is in compliance with state guidelines and finds these expenditures to be prudent, reasonable, necessary and essential to its operations.

Finally, Metro agrees that documented procedures will strengthen internal controls surrounding expenditures for the above programs, local meetings expense and incentive programs such as the Transit Ambassador Program.

Formal operating procedures will be implemented to document existing practices by September 30, 2008.

- B. The observation that expenditure records do not contain a description of the goods and services being purchased is not accurate.*

In 2006 Metro went from an out-dated mainframe accounting system to a state-of-the-art Oracle Enterprise Resource Planning (ERP) System, resulting in the creation of a unified database to serve all the various functions of the organization. Metro's current policies and procedures coupled with the integral controls within the ERP System provide adequate safeguards and documentation for the payment of goods and services. For example, the check request forms used in the old mainframe system, had a small blank space where a brief description could be written. In contrast the ERP's new check request form requires the Cost Center Manager to select an appropriate expenditure code from one of twelve unique categories.

To further strengthen Metro's internal control environment, in mid July 2008, Internal Audit began using the ERP System's capabilities to monitor expenditures.

- C. The Board Audit Committee, the full Board of Commissioners and management have worked diligently to develop, implement and maintain a comprehensive system of internal controls to insure the safety and security of the public funds and assets entrusted to Metro.*

Metro's independent external auditors have issued unqualified opinions, which noted no material weaknesses in internal controls for each of the last five (5) fiscal years.

In the absence of any specific internal control recommendations from the State Auditor, Metro's Board Audit Committee and Board of Commissioners will continue to seek advice from Metro's internal auditors and independent external auditors for recommendations to improve and strengthen the organization's comprehensive system of internal controls.

D. *Board of Commissioner and Staff travel is generally limited to training and attendance at conferences that are not available in the St. Louis metropolitan area, such as industry organizations, and meetings with state and federal authorities. These meetings are usually held at convention/conference hotels in major cities with pre-established conference room pricing. Metro will revise and formally incorporate the federal government's GSA rules and the submission of detailed receipts into its travel policy by September 30, 2008.*

Additionally, Metro will develop a formal Credit Card policy by September 30, 2008.

HISTORY, ORGANIZATION, AND
STATISTICAL INFORMATION

METRO (ST. LOUIS)
HISTORY, ORGANIZATION, AND
STATISTICAL INFORMATION

Metro was established as the Bi-State Development Agency of the Missouri-Illinois Metropolitan District in 1949 by an interstate compact approved by officials of the states of Illinois and Missouri. The compact was approved by the United States Congress and the President in 1950. A ten-member Board of Commissioners sets policy and direction for the Agency. The governor of Missouri appoints the five Missouri Commissioners. In Illinois, the Chairman of the Board for both St. Clair and Madison counties appoint five commissioners. Commissioners must be resident voters of their respective states and serve terms up to five years. Under the compact, the Agency has broad powers to plan, construct, maintain, own and operate bridges, tunnels, airports and terminal facilities, plan and establish policies for sewage and drainage facilities and other public projects, issue bonds and exercise such additional powers as conferred upon it by the legislatures of both states. In 2003, the Agency adopted the name "Metro" for doing business.

The Agency and its services as it exists today has developed over more than a 50 year period. In the 1950's, the Agency developed regional plans and conducted surveys and studies for development of the metropolitan district. In 1953, construction of a 600 foot wharf in Granite City, Illinois was undertaken. In 1962, the Agency was asked to fund and operate the tram system for the Gateway Arch. In 1963, the Agency purchased and consolidated 15 privately-owned bus transit firms, and in 1964, Metro purchased the Parks Metropolitan Airport at Cahokia, Illinois, which is now known as the St. Louis Downtown Airport. In 1983, Metro began construction of the Arch Parking Garage. In the late 1980's construction of the MetroLink light rail system was begun, and the original 17-mile corridor from Lambert International Airport to Fifth and Missouri in East St. Louis was opened in July 1993. Metro then opened a 17-mile extension of the light rail system in St. Clair County, Illinois in May 2001, and in June 2003, an extension of the Illinois corridor to Scott Air Force Base opened. In July 2001, Metro also purchased the Becky Thatcher and Tom Sawyer Riverboats. In August 2006, the Cross County Extension to Shrewsbury opened.

Funding sources include transit system fares and revenues from the airport, the arch transportation system and parking garage, and riverboat and riverfront activities. Metro receives funding under the Missouri Transportation Sales Tax Act and the regional Proposition M transportation sales tax collected in the city of St. Louis and St Louis County, Missouri, as well as grants from the Missouri Department of Transportation. Metro receives funding from the Illinois Department of Transportation, the Metro East Transit District of St. Clair County, the St. Clair County Transportation District, and grants from the Federal Transit Administration, the Federal Aviation Administration, and the Illinois Department of Aeronautics. Metro's Transit Division operates the Metro Bus, MetroLink (light rail), and Metro Call-A-Ride (demand response) transit services.

In fiscal year 2007, the Metro transit system carried about 54 million customers and operated over 28 million revenue miles of service in a 600 square mile area including the City of St. Louis and St. Louis County in Missouri and St. Clair and Monroe Counties in Illinois. Metro employs

approximately 2,200 people. Total assets at June 30, 2007, were approximately \$1.9 billion. The following table presents the projected sources and uses of funds as reported in the Metro annual budget for fiscal year 2008.

Metro Operating and Capital Budget Fiscal Year 2008 (in thousands)		
	Operating	Capital
Sources of Funds:		
State and local assistance	\$ 138,815	118,367
Passenger and service fees	58,455	-
Federal assistance	26,409	220,517
Other	11,682	31,466
Total Sources	235,361	370,350
Uses of Funds		
Wages and benefits	137,111	-
Services	25,279	-
Materials and supplies	15,518	-
Utilities and fuel	23,925	-
Casualty and liability costs	6,013	-
Other, less reimbursements	9,029	-
Capital Projects - MetroLink	-	90,143
Capital projects and equipment - other	-	212,610
New revenue vehicles	-	67,597
Debt service	25,113	-
Total Uses	241,988	370,350
Beginning balance July 1, 2007	21,375	103,550
Ending Balance June 30, 2008	\$ 14,748	103,550

Source: Metro Strategic Plan and Budget, Fiscal Year 2008.

Members of the Board of Commissioners serve without compensation. They are reimbursed for travel expense. As of June 30, 2007, the Board consisted of the following members:

Name	Position	Term Ends	State
Hugh Scott, III	Chair	August 2006	Missouri
Jeffrey K. Watson (1)	Vice-Chair	January 2010	Illinois
Fonzy Coleman	Secretary	January 2009	Illinois
Lewis L. McKinney(2)	Treasurer	November 2009	Missouri
Kevin Cahill (3)	Member	November 2007	Missouri
David A. Dietzel (4)	Member	January 2008	Illinois
Harvey A. Harris (5)	Member	July 2007	Missouri
Tadas Kicielinski	Member	January 2012	Illinois
Dr. Richard LaBore	Member	November 2008	Missouri
Dr. James T. Rosborg	Member	January 2011	Illinois

(1) Mr. Watson was elected Chair effective July 1, 2007

(2) Mr. McKinney was elected Vice-Chair effective July 1, 2007

(3) Mr. Cahill was elected Secretary effective July 1, 2007

(4) Mr. Dietzel was elected Treasurer effective July 1, 2007

(5) Mr. Harris was replaced by Mr. Vincent C. Schoemehl, Jr. on July 24, 2007

The Board appointed Robert J. Baer, President and Chief Executive Officer on December 17, 2007, replacing Larry E. Salci. Mr. Salci served as President and Chief Executive Officer from February 2002 until December 2007. Other top administrative officials have been hired by the authority and are responsible for various duties. The individuals who served in these positions and their annual salaries as of July 1, 2007, were as follows:

Name	Position	Annual Salary (1)
Larry E. Salci	President and CEO	\$ 250,000
Thomas Sehr	Executive Vice President, Administration	126,324
Raymond A. Friem	Senior Vice President, Transit Operations	145,000
Scott Grott	Acting Senior Vice President, Engineering and New System Development	120,845
Jennifer H. Nixon	Senior Vice President, Business Enterprises	123,750
John M. Noce	Senior Vice President and Chief Financial Officer	128,700
M. Celeste Vossmeier	General Counsel	143,325 (2)
Debra S. Erickson	Vice President, Information Systems	127,671
Larry B. Jacson	Vice President, Procurement, Inventory Management and Supplier Diversity	122,997
Adella D. Jones	Vice President, Governmental Affairs and Community Relations	94,600
Patrick McLean	Vice President, Marketing and Customer Service	94,600

(1) Most officials were granted salary increases in August 2007 made retroactive to July 1, 2007.

(2) Ms. Vossmeier's salary was set in March 2008 and made retroactive to July 1, 2007.

An organization chart follows:

METRO (ST. LOUIS)
 ORGANIZATION CHART
 JULY 1, 2007

