

An Internal Control Evaluation Tool For The Construction Industry

Lou X. Orchard, Clayton State University, USA
Scott L. Butterfield, Clayton State University, USA

ABSTRACT

This paper presents a Control Objectives Reconciliation, a tool that independent auditors of clients in the construction industry should find useful in performing a preliminary evaluation of the client's internal control system. Auditors are advised to compare their client's control objectives with those presented in Exhibits 1 through 7. Where the client's system appears to omit significant control objectives, the auditor should consider the risks brought on or magnified by the omission during the preliminary evaluation of the client's internal control system. The Control Objectives Reconciliation is also potentially useful to Construction Company CFOs or Controllers who may be concerned about the adequacy of their company's internal control system. The Reconciliation also highlights for Construction Company CFOs or Controllers those internal controls deemed to be important to their external, independent auditors.

Keywords: Construction, Independent Audit, Internal Control Objectives

INTRODUCTION

This paper presents a tool that many independent auditors will find useful in performing a preliminary assessment of the appropriateness and completeness of the design of the internal control system of a client in the construction industry. This tool, called the *Control Objectives Reconciliation (CO Reconciliation)*, is potentially useful to auditors of both publicly-traded and privately-held construction companies, as well as to controllers or CFOs of construction companies who may have concerns about the quality of their company's internal control system. The CO Reconciliation is important and timely because of current economic conditions as well as recent changes in auditing standards issued by the Public Company Accounting Oversight Board (PCAOB).

Effects of the Economy

Construction companies have been hit especially hard in the recent economic downturn, which began in December 2007 and continues as of this writing. The current recession has driven many companies (including construction firms) into bankruptcy and has weakened countless others. The recession may lead an independent auditor to increase his or her assessment of inherent risk for at least some financial statement accounts and assertions. All other things being held equal, this increase in assessed risk would indicate a need for more effective substantive testing of those accounts and assertions on the part of the auditor. As a result, the nature, timing and extent of the auditor's testing would be amplified.

The nature, timing and extent of an auditor's substantive testing are also affected by his or her assessment of the client's control risk. In this economy, it is particularly important for auditors to exercise care in evaluating the internal control systems of their clients. Several recent developments have affected the auditor's study of a client's internal control system. Next, we highlight these recent changes.

Recent Regulatory Changes

Section 404 of the Sarbanes-Oxley Act of 2002 requires management of publicly-traded companies to assess the effectiveness of their company's internal control system. It also requires the company's independent auditor to attest to (i.e., report on) this assessment by management as part of the audit engagement. The Public Company Accounting Oversight Board (PCAOB) has released guidance to auditors performing such combined engagements, in the form of two Standards. The first is PCAOB Auditing Standard No. 2, "An Audit of Internal Control Over Financial Reporting Performed in Conjunction With An Audit of Financial Statements" (Standard No. 2, issued in March 2004). The second, which superseded Standard No. 2, is PCAOB Auditing Standard No. 5, "An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements" (Standard No. 5, issued in June 2007). The CO Reconciliation tool presented in this paper, while intended to apply in the context of such a combined or integrated audit engagement under PCAOB standards, may nevertheless be useful in performing various other kinds of audit engagements as well. The CO Reconciliation tool is consistent with PCAOB Standard No. 5.

THE CONTROL OBJECTIVES RECONCILIATION

Exhibits 1 through 7 present the CO Reconciliation tool according to the significant *business cycles* for the construction industry.

The significant business cycles highlighted for the construction industry include:

- The Expenditure Cycle (outlined in Exhibit 1)
- The Fixed Assets Cycle (outlined in Exhibit 2)
- The Inventory Management Cycle (outlined in Exhibit 3)
- The Payroll and Personnel Cycle (outlined in Exhibit 4)
- The Billings Cycle (outlined in Exhibit 5)
- The Treasury Cycle (outlined in Exhibit 6)
- The Estimating, Job Cost and Revenue Recognition Cycle (outlined in Exhibit 7).

The first column specifies, for each business cycle, the *principal business activities* of that business cycle. The second column provides, for each of these activities, a number of internal *control objectives*. Auditors are advised, for each cycle and activity, to compare the control objectives of the client's control system with those shown in Exhibits 1-7. This comparison helps ensure that no important control objectives have been omitted from the client's system – and, in cases where one or more have been omitted, serves as a reminder to the auditor to consider the potential negative effects of such an omission on the auditor's preliminary assessment of the design of the client's control system. The third column lists the *accounts affected* by the control objective, as well as (in parentheses) the *assertions* the auditor will be primarily concerned with (for each of those accounts) that would be addressed by that control objective.¹

The control objectives shown in Exhibits 1-7 are not intended to be all-inclusive, because each client and each engagement is unique. For example, client management may have identified additional risks for which they believe additional control objectives are necessary. Given the unique circumstances of the engagement, the auditor may do the same. Although beyond the scope of this paper, an important subsequent step for the auditor to take would be to consider which *control activities* would be necessary in order to provide assurance that each control objective is being met.

¹ The assertions listed by abbreviation in parentheses in column 3 of Exhibits 1 through 7 are derived from, and in some cases identical to, the assertions listed in AICPA auditing standards (AU) Section 326, paragraph 15 and discussed in AU Section 326 paragraphs 14 through 19, Codification of Statements on Auditing Standards, online.

Exhibit 1: Control Objectives Reconciliation for the Expenditure Cycle

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Purchasing	Purchase orders are placed only for approved requisitions.	Operating Expenses (V*), Payables (V), Accrued Expenses (V), Prepaid Expenses (V)
Purchasing	Purchase orders are entered accurately.	Operating Expenses (R), Payables (R), Accrued Expenses (R), Prepaid Expenses (R)
Purchasing	All purchase orders issued are input and processed.	Operating Expenses (Co), Payables (Co), Accrued Expenses (Co), Prepaid Expenses (Co)
Processing Accounts Payable (A/P)	Amounts posted to accounts payable represent goods received.	Operating Expenses (V), Payables (V), Accrued Expenses (V), Prepaid Expenses (V)
Processing A/P	Amounts posted to accounts payable represent services received.	Operating Expenses (V), Payables (V), Accrued Expenses (V), Prepaid Expenses (V)
Processing A/P	Accounts payable amounts are accurately calculated and recorded.	Operating Expenses (R), Payables (R), Accrued Expenses (R), Prepaid Expenses (R)
Processing A/P	All amounts for goods received are input and processed to accounts payable.	Operating Expenses (C), Payables (C), Accrued Expenses (C), Prepaid Expenses (C)
Processing A/P	All amounts for services received are input and processed to accounts payable	Operating Expenses (C), Payables (C), Accrued Expenses (C), Prepaid Expenses (C)
Processing A/P	Amounts for goods or services received are recorded in the appropriate period.	Operating Expenses (Cu), Payables (Cu), Accrued Expenses (Cu), Prepaid Expenses (Cu)
Processing A/P	Accounts payable are only adjusted for valid reasons.	Operating Expenses (Co, V), Payables (Co, V), Accrued Expenses (Co, V), Prepaid Expenses (Co, V)
Processing A/P	Credit notes and other adjustments are accurately calculated and recorded.	Operating Expenses (R), Payables (R), Accrued Expenses (R), Prepaid Expenses (R)
Processing A/P	All valid credit notes and other adjustments related to accounts payable are input and processed.	Operating Expenses (Co, V), Payables (Co, V), Accrued Expenses (Co, V), Prepaid Expenses (Co, V)
Processing A/P	Credit notes and other adjustments are recorded in the appropriate period.	Operating Expenses (Cu), Payables (Cu), Accrued Expenses (Cu), Prepaid Expenses (Cu)
Processing A/P	Assets and liabilities reflect the existing business circumstances and economic conditions in accordance with the accounting policies being used.	Payables (\$), Accrued Expenses (\$), Prepaid Expenses (\$)

* Assertion abbreviations: **Co** = Completeness; **Cu** = Cutoff; **P** = Presentation; **R** = Recording; **V** = Validity; **\$** = Valuation.

Exhibit 1: Control Objectives Reconciliation for the Expenditure Cycle (continued)

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Processing A/P	Financial information is not presented in a misleading way, and all information that is necessary for fair presentation and compliance with professional standards or legal requirements is disclosed.	Operating Expenses (P), Payables (P), Accrued Expenses (P), Prepaid Expenses (P)
Processing Disbursements	Disbursements are only made for goods and services received.	Operating Expenses (V), Payables (Co), Accrued Expenses (Co), Prepaid Expenses (V)
Processing Disbursements	Disbursements are distributed to the appropriate suppliers.	Payables (Co), Accrued Expenses (Co), Prepaid Expenses (V)
Processing Disbursements	Disbursements are accurately calculated and recorded.	Operating Expenses (R), Payables (R), Accrued Expenses (R), Prepaid Expenses (R)
Processing Disbursements	All disbursements are recorded	Operating Expenses (Co), Payables (V), Accrued Expenses (V), Prepaid Expenses (Co)
Processing Disbursements	Disbursements are recorded in the period in which they are issued.	Operating Expenses (Cu), Payables (Cu), Accrued Expenses (Cu), Prepaid Expenses (Cu)
Maintaining Supplier Master File	Only valid changes are made to the supplier master file.	Operating Expenses (Co, V), Payables (Co, V), Accrued Expenses (Co, V), Prepaid Expenses (Co, V)
Maintaining Supplier Master File	All valid changes to the supplier master file are input and processed.	Operating Expenses (Co, V), Payables (Co, V), Accrued Expenses (Co, V), Prepaid Expenses (Co, V)
Maintaining Supplier Master File	Changes to the supplier master file are accurate.	Operating Expenses (R), Payables (R), Accrued Expenses (R), Prepaid Expenses (R)
Maintaining Supplier Master File	Changes to the supplier master file are processed in a timely manner	Operating Expenses (Co, V), Payables (Co, V), Accrued Expenses (Co, V), Prepaid Expenses (Co, V)
Maintaining Supplier Master File	Supplier master file data remains pertinent.	Operating Expenses (Co, V), Payables (Co, V), Accrued Expenses (Co, V), Prepaid Expenses (Co, V)

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Exhibit 2: Control Objectives Reconciliation for the Fixed Assets Cycle

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Acquiring Fixed Assets	Recorded fixed asset acquisitions represent fixed assets acquired by the organization.	Property (V)
Acquiring Fixed Assets	Fixed asset acquisitions are accurately recorded.	Property (R)
Acquiring Fixed Assets	Fixed asset acquisitions are recorded in the appropriate period	Property (Cu)
Acquiring Fixed Assets	All fixed asset acquisitions are recorded.	Property (Co)
Depreciating Fixed Assets	Depreciation charges are valid.	Property (Co), Depreciation Expense (V)
Depreciating Fixed Assets	Depreciation charges are accurately calculated and recorded	Property (R), Depreciation Expense (R)
Depreciating Fixed Assets	All depreciation charges are recorded in the appropriate period.	Property (V, Cu), Depreciation Expense (Co, Cu)
Disposing of Fixed Assets	Recorded fixed asset disposals represent actual disposals.	Property (Co)
Disposing of Fixed Assets	All fixed asset disposals are recorded.	Property (V)
Disposing of Fixed Assets	Fixed asset disposals are accurately calculated and recorded.	Property (R)
Disposing of Fixed Assets	Fixed asset disposals are recorded in the appropriate period.	Property (Cu)
Disposing of Fixed Assets	Fixed assets to be disposed of (under sales contract or as identified by management for sale) are communicated to accounting and financial reporting for compliance with professional standards and fair presentation.	Property (\$, P)
Managing Fixed Assets	Records of fixed asset maintenance activity are accurately maintained.	Property (Co)
Managing Fixed Assets	Fixed assets are adequately safeguarded.	Property (V)
Managing Fixed Assets	Fixed asset maintenance records are updated in a timely manner.	Property (Co)
Managing Fixed Assets	Fixed assets reflect the existing business circumstances and economic conditions in accordance with the accounting policies being used.	Property (\$)
Managing Fixed Assets	Financial information is appropriately presented and all information that is necessary for fair presentation and compliance with professional standards or legal requirements is disclosed.	Property (P), Depreciation Expense (P)
Maintaining Fixed Asset Register and/ or Master File	Only valid changes are made to the fixed asset register and/or master file.	Property (Co, V)
Maintaining Fixed Asset Register and/ or Master File	All valid changes to the fixed asset register and/or master file are input and processed.	Property (Co, V), Depreciation Expense (Co, V)
Maintaining Fixed Asset Register and/ or Master File	Changes to the fixed asset register and/or master file are accurate.	Property (R), Depreciation Expense (R)
Maintaining Fixed Asset Register and/ or Master File	Changes to the fixed asset register and/or master file are processed in a timely manner.	Property (Co, V), Depreciation Expense (Co, V)
Maintaining Fixed Asset Register and/ or Master File	Fixed asset register and/or master file data remains pertinent.	Property (Co, V), Depreciation Expense (Co, V)

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Exhibit 3: Control Objectives Reconciliation for the Inventory Management Cycle

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Managing Inventory	Inventory is salable or usable.	Inventory (\$), Cost of Sales (\$)
Managing Inventory	Inventory is adequately safeguarded.	Inventory (V), Cost of Sales (V)
Managing Inventory	Adjustments to inventory prices or quantities relate to valid price changes and physical inventory differences.	Inventory (V, Co, R), Cost of Sales (V, Co, R)
Managing Inventory	All adjustments to inventory prices or quantities are recorded.	Inventory (V, Co, R), Cost of Sales (V, Co, R)
Managing Inventory	Adjustments to inventory prices or quantities are recorded in a timely manner and in the appropriate period.	Inventory (Cu), Cost of Sales (Cu)
Managing Inventory	Adjustments to inventory prices or quantities are recorded accurately.	Inventory (R), Cost of Sales (R)
Managing Inventory	Inventory reflects the existing business circumstances and economic conditions in accordance with the accounting policies being used.	Inventory (\$)
Managing Inventory	Financial information is appropriately presented, and all information that is necessary for fair presentation and compliance with professional standards or legal requirements is disclosed.	Inventory (P)
Receiving And Storing Raw Materials	Raw materials are received and accepted only if they have valid purchase orders.	Inventory (V)
Receiving And Storing Raw Materials	Raw materials received are recorded accurately.	Inventory (R), Cost of Sales (R)
Receiving And Storing Raw Materials	All raw materials received are recorded.	Inventory (Co), Cost of Sales (Co)
Receiving And Storing Raw Materials	Receipts of raw materials are recorded in a timely manner and in the appropriate period.	Inventory (Cu), Cost of Sales (Cu)

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Exhibit 3: Control Objectives Reconciliation for the Inventory Management Cycle (continued)

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Receiving And Storing Raw Materials	Defective raw materials are returned in a timely manner to suppliers.	Inventory (V), Cost of Sales (V)
Requisitioning Materials	All transfers of raw materials to production are recorded accurately and in the appropriate period.	Inventory (R, Cu), Cost of Sales (R, Cu)
Producing Inventory	All raw materials consumed are recorded in sufficient detail to be identified with applicable classifications, such as job orders or allocation to units in process.	Inventory (R), Cost of Sales (R)
Producing Inventory	Direct and indirect labor costs posted to inventory accounts are consistent with payroll time and attendance data.	Inventory (R), Cost of Sales (R)
Producing Inventory	All direct and indirect labor costs are recorded in sufficient detail to be identified with applicable classifications, such as job orders or allocation to units in process.	Inventory (R), Cost of Sales (R)
Producing Inventory	Overhead rates are consistent with actual overhead expenses and plant capacity	Inventory (R), Cost of Sales (R)
Producing Inventory	Overhead is applied to production based on established overhead rates.	Inventory (R), Cost of Sales (R)
Producing Inventory	Standard costs are consistent with actual direct expenses and plant capacity. [Note: Applies to STANDARD COSTING SYSTEMS ONLY]	Inventory (R), Cost of Sales (R)
Producing Inventory	Finished goods inventory costing is accurately calculated and recorded using established standards. [Note: Applies to STANDARD COSTING SYSTEMS ONLY]	Inventory (R), Cost of Sales (R)
Producing Inventory	All transfers of completed units of production to fixed goods inventory are recorded completely and accurately in the appropriate period.	Inventory (R, Co, Cu), Cost of Sales (R, Co, Cu)
Producing Inventory	All defective products and scrap resulting from the production process are recorded completely and accurately in the appropriate period.	Inventory (R, Co, Cu), Cost of Sales (R, Co, Cu)
Handling Finished Products	Finished goods returned by customers are recorded completely and accurately in the appropriate period.	Inventory (R, Co, Cu), Cost of Sales (R, Co, Cu)

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Exhibit 3: Control Objectives Reconciliation for the Inventory Management Cycle (continued)

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Handling Finished Products	Finished goods received from production are recorded completely and accurately in the appropriate period.	Inventory (R, Co, Cu), Cost of Sales (R, Co, Cu)
Handling Finished Products	Goods received from production or returned by customers are only accepted in accordance with the organization's policies.	Inventory (V)
Shipping Finished Products	All shipments are recorded.	Inventory (V), Cost of Sales (V)
Shipping Finished Products	Shipments are recorded accurately.	Inventory (R), Cost of Sales (R)
Shipping Finished Products	Shipments are recorded in a timely manner and in the appropriate period.	Inventory (Cu), Cost of Sales (Cu)
Shipping Finished Products	Inventory is released only when goods are shipped with approved customer orders.	Inventory (Co), Cost of Sales (Co)
Maintaining Inventory Master File	Only valid changes are made to the inventory management master file.	Inventory (V, Co), Cost of Sales (V, Co)
Maintaining Inventory Master File	All valid changes to the inventory management master file are input and processed.	Inventory (V, Co), Cost of Sales (V, Co)
Maintaining Inventory Master File	Changes to the inventory management master file are accurate.	Inventory (R), Cost of Sales (R)
Maintaining Inventory Master File	Changes to the inventory management master file are processed timely.	Inventory (V, Co), Cost of Sales (V, Co)
Maintaining Inventory Master File	Inventory management master file remains pertinent.	Inventory (Co, V), Cost of Sales (Co, V)

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Exhibit 4: Control Objectives Reconciliation for the Payroll and Personnel Cycle

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Hiring Personnel	Additions to the payroll master file represent valid employees.	Payroll (V) Accrued Expenses (V)
Hiring Personnel	All new employees are added to the payroll master file.	Payroll (Co) Accrued Expenses (Co)
Terminating Personnel	Terminated employees are removed from the payroll master file.	Payroll (V) Accrued Expenses (V)
Terminating Personnel	Employees are only terminated within statutory and union requirements.	Payroll (Co) Accrued Expenses (Co)
Terminating Personnel	Deletions from the payroll master file represent valid terminations.	Payroll (Co) Accrued Expenses (Co)
Recording Time	Time and attendance data recorded reflects actual time worked and is authorized.	Payroll (V) Accrued Expenses (V)
Recording Time	All time worked is input.	Payroll (Co) Accrued Expenses (Co)
Recording Time	Time worked is accurately input and processed.	Payroll (R) Accrued Expenses (R)
Recording Time	Time worked is processed in a timely manner.	Payroll (Cu) Accrued Expenses (Cu)
Calculating Payroll	Payroll is recorded in the appropriate period.	Payroll (Cu) Accrued Expenses (Cu)
Calculating Payroll	Payroll (including compensation and withholdings) is accurately calculated and recorded.	Payroll (R) Accrued Expenses (R)
Calculating Payroll	Payroll related accruals/provisions reflect the existing business circumstances and economic conditions in accordance with the accounting policies being used.	Accrued Expenses (\$)
Calculating Payroll	Financial information is not presented in a misleading way, and all information that is necessary for fair presentation and compliance with professional standards or legal requirements is disclosed.	Payroll (P) Accrued Expenses (P)
Disbursing Payroll	Payroll disbursements and recorded payroll expenses relate to actual time worked.	Payroll (V) Accrued Expenses (V)

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Exhibit 4: Control Objectives Reconciliation for the Payroll and Personnel Cycle (continued)

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Disbursing Payroll	Payroll is disbursed to appropriate employees.	Payroll (V) Accrued Expenses (V)
Maintaining Payroll Master Files	Only valid changes are made to the payroll master files.	Payroll (V, Co) Accrued Expenses (V, Co)
Maintaining Payroll Master Files	All valid changes to the payroll master files are input and processed.	Payroll (V, Co) Accrued Expenses (V, Co)
Maintaining Payroll Master Files	Changes to the payroll master files are accurate.	Payroll (R) Accrued Expenses (R)
Maintaining Payroll Master Files	Changes to the payroll master files are processed in a timely manner.	Payroll (V, Co) Accrued Expenses (V, Co)
Maintaining Payroll Master Files	Payroll master files data remains pertinent.	Payroll (Co, V) Accrued Expenses (Co, V)
Maintaining Payroll Master Files	Only valid changes are made to the payroll withholding tables.	Accrued Expenses (V, Co)
Maintaining Payroll Master Files	All valid changes to the payroll withholding tables are input and processed.	Accrued Expenses (V, Co)
Maintaining Payroll Master Files	Changes to the payroll withholding tables are accurate.	Accrued Expenses (R)
Maintaining Payroll Master Files	Changes to the payroll withholding tables are processed in a timely manner.	Accrued Expenses (V, Co)
Maintaining Payroll Master Files	Payroll withholding table data remains pertinent.	Accrued Expenses (Co, V)
Maintaining Payroll Master Files	Statutory withholding tables are consistent with statutory requirements.	Accrued Expenses (Co, V)

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Exhibit 5: Control Objectives Reconciliation for the Billings Cycle

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Managing and Processing Billings	Billings are approved by project managers as to contract specifications.	Receivables (V)
Managing and Processing Billings	Billings and cancellations of billings are input accurately.	Receivables (R)
Invoicing	Billings are accurately calculated and recorded.	Receivables (R)
Invoicing	Adjustments to accounts receivable are accurately calculated and recorded.	Receivables (R)
Invoicing	All billings processed are recorded.	Receivables (Co)
Invoicing	Billings are recorded in the appropriate period.	Receivables (Cu)
Invoicing	Accounts Receivable reflect the existing business circumstances and economic conditions in accordance with the accounting policies being used.	Receivables (\$)
Invoicing	Accounts Receivable information is not presented in a misleading way and all information that is necessary for fair presentation and compliance with professional standards or legal requirements is disclosed.	Receivables (P)
Processing Cash Receipts	Cash receipts are recorded in the period in which they are received.	Receivables (Cu)
Processing Cash Receipts	Cash receipts data is entered for processing accurately.	Receivables (R)
Processing Cash Receipts	All cash receipts data is entered for processing.	Receivables (V)
Processing Cash Receipts	Cash receipts data is valid and is entered for processing only once.	Receivables (Co)
Processing Cash Receipts	Timely collection of accounts receivable is monitored.	Receivables (\$)
Maintaining Contract Master File	Only valid changes are made to the contract master file.	Receivables (Co, V)
Maintaining Contract Master File	All valid changes to the contract master file are input and processed.	Receivables (Co, V)
Maintaining Contract Master File	Changes to the contract master file are accurate.	Receivables (R)
Maintaining Contract Master File	Changes to the contract master file are processed in a timely manner.	Receivables (Co, V)

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Exhibit 6: Control Objectives Reconciliation for the Treasury Cycle

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Borrowing		
Borrowing	Recorded debt represents a valid liability of the organization.	Notes Payable & Long-Term Debt (V)
Borrowing	Borrowings are recorded accurately as to amounts and terms.	Notes Payable & Long-Term Debt (R)
Borrowing	All borrowings are recorded.	Notes Payable & Long-Term Debt (Co)
Borrowing	Borrowings are recorded in the appropriate period.	Notes Payable & Long-Term Debt (Cu)
Borrowing	All interest is accurately calculated and recorded in the appropriate period.	Investment Income and Interest Expense (Co, V, R, Cu)
Borrowing	Recorded loan repayments are valid.	Notes Payable & Long-Term Debt (Co)
Borrowing	Loan repayments are accurately recorded.	Notes Payable & Long-Term Debt (R)
Borrowing	All loan repayments are recorded.	Notes Payable & Long-Term Debt (V)
Borrowing	Loan repayments are recorded in the appropriate period.	Notes Payable & Long-Term Debt (Cu)
Borrowing	Loans are repaid in accordance with the terms of the loan.	Notes Payable & Long-Term Debt (Co)
Borrowing	The organization complies with loan covenants.	Notes Payable & Long-Term Debt (Co)
Managing Cash And Investments	Recorded investments represent assets of the organization.	Investments/Derivatives (V)
Managing Cash And Investments	Investment purchases, sales, and maturities are accurately recorded.	Investments/Derivatives (R)
Managing Cash And Investments	All investment transactions are recorded.	Investments/Derivatives (Co)
Managing Cash And Investments	Investment transactions are recorded in the appropriate period.	Investments/Derivatives (Cu)
Managing Cash And Investments	All investment income is accurately calculated and recorded in the appropriate period.	Investment Income and Interest Expense (Co, V, R, Cu)
Managing Cash And Investments	Loans and investments reflect the existing business circumstances and economic conditions in accordance with the accounting policies being used.	Notes Payable & Long-Term Debt (\$), Investments/Derivatives (\$)

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Exhibit 6: Control Objectives Reconciliation for the Treasury Cycle (continued)

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Managing Cash And Investments	Financial information is appropriately presented and all information that is necessary for fair presentation and compliance with professional standards or legal requirements is disclosed.	Notes Payable & Long-Term Debt (P), Investments/Derivatives (P), Investment Income and Interest Expense (P)
Managing Derivative Transactions	Senior management has an understanding of the organization's derivative activities.	Investments/Derivatives (V, Co, R, Cu, P), Off-Balance-Sheet Derivative Transactions (P) Investment Income and Interest Expense (V, Co, R, Cu)
Managing Derivative Transactions	Recorded derivative transactions represent assets or liabilities of the organization.	Investments/Derivatives (V)
Managing Derivative Transactions	Disclosed off-balance sheet derivative transactions represent valid transactions.	Off-Balance-Sheet Derivative Transactions (P)
Managing Derivative Transactions	Derivative transactions are accurately recorded.	Investments/Derivatives (R)
Managing Derivative Transactions	Disclosed off-balance sheet derivative transactions are properly presented.	Off-Balance-Sheet Derivative Transactions (P)
Managing Derivative Transactions	All derivative transactions are recorded in the financial statements.	Investments/Derivatives (Co)
Managing Derivative Transactions	All off-balance sheet derivative transactions are disclosed in the financial statements.	Off-Balance-Sheet Derivative Transactions (P)
Managing Derivative Transactions	Derivative transactions are recorded in the appropriate period.	Investments/Derivatives (Cu)
Managing Derivative Transactions	Off-balance sheet derivative transactions are recorded in the financial statements in the appropriate period.	Off-Balance-Sheet Derivative Transactions (P)
Managing Derivative Transactions	All investment income on derivative transactions is accurately calculated and recorded in the appropriate period.	Investment Income and Interest Expense (V, Co, R, Cu)
Managing Derivative Transactions	All interest expense on derivative transactions is accurately calculated and recorded in the appropriate period.	Investment Income and Interest Expense (V, Co, R, Cu)
Managing Derivative Transactions	Derivative transactions reflect the existing business circumstances and economic conditions in accordance with the accounting policies being used.	Investments/Derivatives (\$) Off-Balance-Sheet Derivative Transactions (P)

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Exhibit 7: Control Objectives Reconciliation for the Estimating, Job Cost, and Revenue Recognition Cycle

Principal Business Activity	Control Objective	Accounts Affected (Auditor Assertion Addressed by that Control Objective*)
Estimating And Bidding	Contract job bids are prepared with reliable estimates prior to submission.	Job Costs (V, Co), Revenue (V, Co), Over/Under Billings (V, Co)
Estimating And Bidding	Estimate revisions are accurate and timely.	Revenue (Co, Cu, R), Over/Under Billings (Co, Cu, R)
Job Costing	Payroll expenses are coded to the proper job and cost category.	Job Costs (R, Co), Revenue (R, Co), Over/Under Billings (R, Co)
Job Costing	Purchases/subcontract costs are coded to the proper job and cost category.	Job Costs (R, Co), Revenue (R, Co), Over/Under Billings (R, Co)
Job Costing	Job cost adjustments and revisions (i.e. credits, transfers, other maintenance) are recorded to the proper job and cost categories.	Job Costs (R, V), Revenue (R, V), Over/Under Billings (R, V)
Job Costing	Job cost reports are mathematically accurate.	Job Costs (R), Revenue (R), Over/Under Billings (R)
Job Costing	Job cost system agrees to general ledger.	Job Costs (R), Revenue (R), Over/Under Billings (R)
Revenue Recognition	Contract values, including change orders, are recorded accurately and in a timely manner.	Revenue (Co, Cu), Over/Under Billings (Co, Cu)
Revenue Recognition	Percentage of completion is calculated accurately.	Revenue (R), Over/Under Billings (R)
Revenue Recognition	Revenue recognized is calculated accurately.	Revenue (R), Over/Under Billings (R)
Revenue Recognition	High level revisions of revenue recognition are accurate and appropriate.	Revenue (V, R), Over/Under Billings (V, R)
Revenue Recognition	Progress billings are coded to the proper job	Over/Under Billings (R)
Revenue Recognition	Over/under billings are calculated accurately.	Over/Under Billings (R)

*Assertion abbreviations: Co = Completeness; Cu = Cutoff; P = Presentation; R = Recording; V = Validity; \$ = Valuation.

3. SUMMARY AND CONCLUSION

This paper presents a tool that is potentially useful to independent auditors performing a preliminary assessment of the design of the internal control system of a client in the construction industry. This tool, the Control Objectives Reconciliation, is important and timely because of both current economic conditions and recent changes in PCAOB auditing standards. A comparison by the auditor of the control objectives of the client's system with those shown in Exhibits 1-7 will help ensure that no important control objectives have been omitted from the client's system – and in cases of omission, will serve to remind the auditor to consider the effect of the omission on his or her preliminary assessment of the client's control system. Construction company CFOs and controllers who have concerns about the adequacy of their company's internal control system will find Exhibits 1-7 to be practical benchmark for comparison.

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AUTHOR BIOGRAPHIES

Lou X. Orchard is an Assistant Professor at Clayton State University, Morrow, Georgia. He received his B.A. degree in Business Administration (Accounting) and his MBA from the University of Washington, and his Ph.D. in Business Administration (Accounting) from the University of Arizona. In addition to these schools, Dr. Orchard has also taught accounting at the University of Houston (where he taught Auditing and Advanced Auditing) and Wichita State University. He has worked for what is now a Big Four CPA firm, as well as a commercial real estate company.

Scott L. Butterfield is an Associate Professor of Accounting at Clayton State University, Morrow, Georgia. Dr. Butterfield worked as a tax consultant for Coopers & Lybrand, performing consulting and compliance work for a variety of clients in varied industries, including: Banking, Manufacturing, Restaurant/Food Services, Biotech, Electric Co-Generation, and Non-Profit, as well as for high-net-worth individuals. His research interests include: Taxpayer Behavior, Taxes and Public Policy, Managerial and Cost Accounting.

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