



Metropolitan St. Louis Sewer District

Review of Construction Projects in Progress

December, 2018

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Table of Contents

Overview and Scope	2
Objectives	4
Methodology.....	5
Overall Conclusion and Results	6
Opportunities for Improvement	7
Acknowledgements	8

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OVERVIEW/SCOPE

During 2012, a Consent Decree (the Decree) between the United States of America (EPA), the Missouri Coalition for the Environment, and the Metropolitan St. Louis Sewer District (“MSD”) was entered with an effective date of April 27, 2012. As a result of the Decree requirements, the District developed and implemented **Project Clear**, which contains a very large construction component, called **Build System Improvements**. The work outlined in this component was originally scheduled to take place over twenty-three years. However, on June 22, 2018, a United States District Judge approved an amendment that **extends the schedule from twenty-three years to twenty-eight years**. (The reasoning behind the extension is the issuance of new regulatory requirements requiring the acceleration of projects outside the scope of the Consent Decree.)

Since the initial execution of the Decree, construction activities and costs have steadily increased. District payments for capital assets are as follows (**per audited cash flow statements**):

<u>Fiscal Year</u>	<u>Payments for Capital Assets</u>
FY 2018	\$236,673,660
FY 2017	\$259,279,932
FY 2015	\$201,243,603
FY 2014	\$163,882,733
FY 2013	\$154,847,862
FY 2012	\$147,723,685

The budgeted amount for the CIRP (Capital Improvement and Replacement Program) in **FY '19 is \$381.6 million**. The overall estimated cost for Project Clear is \$4.7 billion (**in 2010 dollars**).

With construction activities and costs continually increasing throughout the past several years and no real “slowdown” in sight, the importance of maintaining effective procedures and controls around the administration of construction/capital improvements projects remains a significant objective for the District.

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OVERVIEW/SCOPE

Scope

For this engagement, Internal Audit (IA) took a slightly different approach than that used for prior engagements in this area. **Instead of focusing on completed projects, the focus for this engagement was on “active” projects.** With that in mind, IA selected two active projects from the April 30, 2018 current project listing provided by Engineering. The two projects selected are summarized below:

Project Name	1. Jefferson Barracks Tunnel	2. Harlem Baden Relief
Project Description	South St. Louis County - construct Sanitary Storage Tunnel: a) 17,800 feet (3.37 miles) tunnel lined with a 7-foot diameter fiberglass pressure pipe and containing instrumentation conduits; tunnel is 150 to 230 feet below ground (stores 5 million gal of wastewater); b) 88-foot diameter launch shaft; c) 28-foot diameter recovery shaft; d) 7-new intake structures.	City of St. Louis - Construct storm sewers: a) 5,550 feet of 12-inch to 108-inch (9ft) storm sewers; b) 540 feet of sanitary sewers; and c) 3,240 feet of sewer lining.
Contract #	#11711	#11770
Contract amount	\$63,333,333	\$8,014,995
Contractor	SAK Construction	Bates Utility
Type of contract	Lump Sum	Unit Cost
Start date	March, 2017	June, 2017
End date – estimated	April 2020	January 2019
Duration	3 years	18 months
Payments as of 6-30-2018	\$14,416,685	\$3,270,371
% complete at 6-30-2018	23.0%	40.3%

The overall scope was to review the administration of these two active contracts with a specific focus on the processing of payment application and change order transactions.

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OBJECTIVES

Objectives

The main objectives were to:

- Ensure payment application and change order transactions are:
 - Processed in compliance with the terms of each contract.
 - Processed only for costs that are reasonable and allowable per the provisions of the contract.
 - Accurately processed (mathematically accurate).
 - And prepared:
 - Using appropriate rates.
 - For work/costs actually performed/incurred (unless for appropriate mobilization costs).
 - For costs not already paid by (or billed to) the District.
 - Priced accurately and consistently for portions of work performed by subcontractors.
 - Supported by adequate documentation.

- Ensure compliance with other contract and District requirements.

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METHODOLOGY

Methodology

To accomplish the above objectives, Internal Audit (IA):

- Held discussions with personnel from Engineering to gain an understanding of the overall procedures utilized for project oversight as well as contractor payment and change order processing.
- Obtained and reviewed District documentation related to the overall process and documentation related to the two selected contracts. Documentation included:
 - Contract documentation for each selected project
 - Ordinances for each project
 - #14599 - Jefferson Barracks Tunnel
 - #14881 - Harlem-Baden Relief
 - Change order documentation
 - Pay application documentation
- Performed detailed testing of pay applications and change order transactions for:
 - Mathematical accuracy, reasonableness, and overall propriety
 - Adequacy of the supporting documentation
 - Compliance with contract terms
 - Accuracy, consistency, and propriety of amounts pertaining to subcontractors
- Reviewed for compliance with other contract and District requirements such as:
 - Timely completion of monthly diversity reports
 - Compliance with prevailing wage requirements
- At completion of fieldwork met with the process owners to clarify any ambiguities around the processes and the methodology utilized by the District

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OVERALL CONCLUSION AND RESULTS

In the opinion of Internal Audit, in all significant respects, the controls and procedures utilized to administer construction/capital improvement contracts are effectively designed and implemented.

Initial Inherent Business Process Risk: High Risk [#]
Overall Assessment of Engagement Results: Satisfactory ^{}**

^DEFINITIONS

How Results Are Assessed

****** Engagement results are evaluated as *Satisfactory*, *Generally Satisfactory* or *Unsatisfactory*.

- **Satisfactory** (*clean opinion*) – No significant engagement findings² or material weaknesses³ were noted. Engagement findings¹ may have been noted.
- **Generally Satisfactory** (*qualified opinion, i.e. “except for”*) – Results contain significant engagement findings². No material weaknesses³ were noted.
- **Unsatisfactory** (*adverse opinion, immediate Management attention required*) – Significant engagement findings² and/or material weaknesses³ were noted.

Types of Findings

1. Engagement Finding ([#]*Low Risk*): An engagement finding is a condition that could adversely affect the organization but is less severe than a significant engagement finding or significant deficiency. Classification includes process or control deficiencies that are not significant deficiencies as well as includes other low risk or low impact conditions.

2. Significant Engagement Finding ([#]*Moderate to High Risk*): A significant engagement finding is a condition that could adversely affect the organization. Definition includes all types of findings, such as irregularities, waste, ineffectiveness, conflicts of interest, illegal acts, errors, and significant deficiencies in internal control over financial reporting as well as other significant internal control weaknesses. From a financial reporting perspective, a significant deficiency is defined as a deficiency, or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

3. Material Weakness ([#]*High Risk*): A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the financial statements will not be prevented or detected and corrected in a timely basis. For internal audit purposes, the definition also includes material and/or severe irregularities, waste, ineffectiveness, conflicts of interest, illegal acts, errors, and other material control weaknesses, etc.

(The term “material weakness” should be thought of as a serious category of significant engagement findings and/or significant deficiencies. However, not all significant engagement findings and significant deficiencies are material weaknesses.)

[^] - Definitions are based on guidance from the IIA Standards, GAAS, and the PCAOB.

[#] - Risk is assessed at the District (Entity) Level. (Risk to the District as a whole)

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OPPORTUNITIES FOR IMPROVEMENT

No reportable items were identified.

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