Program Schedule Management
May 2019 – April 2022

April 2023

EXECUTIVE SUMMARY

The Audit Office of the California High-Speed Rail Authority (Authority) performed an audit to determine if the processes and procedures for managing the Master Program Schedule are documented, followed, and supported.

The scope of the engagement was limited to reviewing processes during the period of May 1, 2019, through April 30, 2022. Our audit included examining policies, procedures, and other relevant criteria, interviewing personnel, and conducting tests necessary to complete the objectives.

Our audit of the Program Schedule management process found that there were documented processes in place and schedule management practices generally complied with the procedures. We acknowledge the process improvement efforts of the Program Controls Branch and the Scheduling Unit. At the latter part of the audit period, there has been an improvement in their documentation of review tools/reports used during their monthly schedule review. Additionally, the Program Controls Branch has implemented a consistent delay assessment process and is currently reviewing and updating their desk procedures.

However, there are no written procedures for managing the Master Program Schedule elements outside the Construction Packages, and the documented processes do not fully align with the current practice in place. Also, processes and procedure documents for scheduling are not consistent and need to be revised, then approved per Authority procedures. In addition, the monthly review process lacks supporting documentation, and the Program Controls Scheduling Unit does not have an employee contingency plan, which coupled with outdated procedures could lead to inconsistencies in the work performed.

Paula Rivera   April 21, 2023
_____   _____
Paula Rivera, Audit Chief   Date

Audit Report

BACKGROUND

The California Legislature created the California High-Speed Rail Authority (Authority) as part of the California High-Speed Development Act of 1994. The Authority is responsible for planning, designing, building and operation of the first high-speed rail system in the nation. California high-speed rail will connect the mega-regions of the state, contribute to economic development and a cleaner environment, create jobs, and preserve agricultural and protected lands.

The Authority is responsible for overall management, oversight, and monitoring of the California High-Speed Rail Program. Therefore, the Authority must provide a means of tracking and monitoring program goals and accomplishments. The Program Controls Branch is accountable for the development and oversight of program/project management activities. The Master Program Schedule integrates high level details of scopes, timelines, important milestones, and project-specific baseline schedules. It provides a top-level view across the entire program.

One of the primary responsibilities of the Program Controls Branch is managing the Program Baseline Schedule and reporting Program performance against the Baseline. The Program Controls Branch is also responsible for developing and implementing the policies and procedures required to manage the Program Baseline. Furthermore, the Program Controls Scheduling Unit within the Program Controls Branch includes consultant schedulers who are responsible for implementing an effective schedule management process.

The Program Controls Plan establishes the processes for management and control of the Program-wide scope, cost, and schedule. Additionally, the Schedule Management Plan subsection provides an overview of processes used to establish the baseline schedule, measure progress, assess performance, manage change, and reporting. These processes are also documented in various manuals and procedures.

The Design-Build contractor for each Construction Package must submit a project-specific baseline schedule for review and approval by the Authority and its agent, the Project Construction Management team. This baseline schedule is the basis for monitoring and measuring the contractor's progress and performance throughout their contract. The contractor also submits monthly schedule packages that include Monthly Progress Reports and Schedule Progress Updates and other relevant documentation. During our audit period, out of 108 monthly schedule packages for all Construction Packages, the contractors submitted the schedules more than a week late 91% of the time.

OBJECTIVES, SCOPE, and METHODOLOGY

The purpose of this audit was to determine if the practices and procedures for developing, monitoring, modifying, and reporting the Master Program Schedule are documented, followed, and supported. The audit objectives were:

1. Determine if there are written policies and procedures in place for program schedule management.
2. Verify if policies and procedures being followed.
3. Verify if program schedule management efforts documented.

The scope of the audit includes the program schedule process during the period of May 1, 2019, through April 30, 2022. Our audit included examining policies, procedures, and other relevant criteria, interviewing personnel, and conducting tests necessary to complete the objectives. We tested 15 (14%) monthly schedule packages submitted by the contractors from a total of 108 monthly submittals.

The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing. The results of this audit were discussed with the Program Schedule Lead, Deputy Director of Program Controls Branch, and the Supervising Transportation Engineer of the Program Controls Branch on January 26, 2023. The Program Controls Branch provided a response, which is included as Attachment A. This report is intended as information for Authority management's use; however, this report is a public document, and its distribution is not limited. We appreciate the Authority's time and cooperation throughout the audit and look forward to assisting the Program Controls Branch and the Program Controls Scheduling Unit as needed.

CONCLUSION

Our audit of the Program Schedule management process found that there were documented processes in place and schedule management practices generally complied with the procedures. We acknowledge the process improvement efforts of the Program Controls Branch and the Scheduling Unit. At the latter part of the audit period, there has been an improvement in their documentation of review tools/reports used during their monthly schedule review. Additionally, the Program Controls Branch has implemented a consistent delay assessment process and is currently reviewing and updating their desk procedures.

We found the process for managing the program baseline schedule, based on our sample of 15 monthly schedule submittals by the contractors, generally complied with the Program Controls Branch's documented procedures. However, as identified in the Issues below, there are no written procedures for managing the Program Schedule for elements outside the Construction Packages, and the documented processes do not fully align with the current practice in place. Also, processes and procedure documents for scheduling

oversight are not consistent and need to be revised, then approved per Authority procedures. In addition, the monthly review process lacks supporting documentation, and the Program Controls Scheduling Unit does not have an employee contingency plan, which coupled with outdated procedures could lead to inconsistencies in the work performed.

Our issues and observation are detailed below.

Issue 1: Lack of Written Processes and Procedures for Projects Outside Construction Packages

The Program Controls Branch does not have written processes and procedures and/or supporting documents for managing projects/schedules outside the Construction Packages. Written documents provide a means to retain organizational knowledge and mitigate the risk of having that knowledge limited to a few personnel. Lack of written policies and procedures to manage projects and schedules may cause personnel to be unable to implement the control activities for their assigned responsibilities, which may lead to inaccurate and incomplete data in the Master Program Schedule and supporting reports.

Recommendation

Program Controls Branch should develop written processes and procedures for managing schedules/projects outside the Construction Packages and align their practices accordingly.

Auditee Response

The RMO [Risk Management Office] agrees with this finding. While the practice of managing the schedule is occurring, as documented by the monthly reporting of program schedule status in the Program Delivery Status Report, the Program Controls Manual is lacking the process and procedures in practice for managing schedules outside of the construction packages. The RMO will be updating its Project Controls Manual to clearly identify the employed practices, procedures, and processes for managing schedules of projects outside of the Construction Packages.

The Project Controls Manual is undergoing a significant update since its last revision and this recommendation response action will be completed no later than December 2023.

Auditor Analysis of Response

We agree with the corrective action identified.

Issue 2: Updates to Program Schedule Procedure Documents are Needed

Although there are written Program Schedule management procedure documents, they are not fully aligned with the current Program Controls Branch practice in place and auditors identified inconsistencies between the manuals and procedure documents the Program Controls Branch utilizes. The lack of updated clear written processes and procedures can jeopardize the implementation process of key control activities and the facilitation of

transition for incoming consultants to the program. In addition, inconsistencies between manuals and procedures may lead to confusion and lack of clarity among schedulers, new staff transitioning into the unit, and other program schedule stakeholders.

According to Authority Policy POLI-1046: Policy Governing the Development, Issuance, and Maintenance of the California High-Speed Rail Authority Policies and Procedures, policy owners are responsible to ensure reviewed documents are revised as appropriate and assumes primary responsibility for providing guidance necessary to achieve compliance with documents that fall under their jurisdiction. Furthermore, State-adopted Federal Standards for Internal Controls states that management should periodically review policies, procedures, and related control activities for continued relevance and effectiveness in achieving the entity's objective or addressing related risk.[1]

Examples are presented below:

- Manuals and/or documented procedures that address the current monthly schedule review practice are not in place. The monthly schedule review process is detailed in the May 2019 Program Scheduling Management Unit Procedure. However, as identified during walkthrough interviews with schedulers, the tools and types of reports utilized to complete the monthly schedule reviews were different and do not align with the outdated procedure document.

- Manuals and/or procedure documents utilized by the Program Controls Branch that address the update of the Master Program Schedule with the conditional approval/acceptance practice are not in place. Without clear written procedures, it appears that the Master Program Schedule was prematurely updated to include a Revised Baseline Schedule for one of the Construction Packages based on the relevant document dates. Furthermore, that latest update of the Master Program Schedule provided coincides with the last month of our audit period, therefore Auditors infer that subsequent revisions to project-specific baseline schedules for the remaining two Construction Packages have not been updated in the Master Program Schedule.

- Terminologies regarding program schedule management within these documents are not consistent. Furthermore, the hierarchy levels of schedules within the program and the project also differ within these documents.

- Directional information flow of schedules regarding program schedule management within these document are not consistent.

Recommendation

The Program Controls Branch should revise and update their procedures/manuals to align with their current practices in place. Revisions and updates should include, but not be limited to identifying which reports and/or review tools are mandatory for each monthly progress update to maintain consistency within the review process and identifying requirements/timeframe, and developing clear language for updating the Master Program

---

[1] GAO Standards for Internal Control in the Federal Government (Green Book) Principle 12.05

Schedule. Also, the Program Controls Branch should review inconsistencies related to managing program schedules in the various documents utilized by the schedulers and other stakeholders and revise and update their procedures/manuals documents to ensure consistency.

Auditee Response

Overall, the RMO agrees with the recommendation from the Auditor to revise and update procedures and manuals to align with current practices. [Abbreviated response]

Auditor Analysis of Response

We agree with the corrective action identified.

Issue 3: Lack of Procedure Document Approval

The Program Scheduling Management Unit Procedure, which was prepared as a contract deliverable, lacks approval per Authority Procedure for the Development, Issuance, and Maintenance of the California High-Speed Rail Authority Policies and Procedures, Tier 2 Procedure Document.

The procedure did not go through the Authority's Policy Development System and the Review and Approval System, which means it was not primarily reviewed by Legal Office and other relevant Authority functions. Therefore, the procedure is not in the Authority's primary and official repository for approved documents, the Terminal Kiosk. As a result, the procedure document is not readily accessible Authority-wide.

Recommendation

Program Controls Branch should review the Program Scheduling Management Unit Procedure document to determine if there have been any changes since the last revision in 2019, update as necessary, and route the procedure for approval per Authority Procedure PROC-1025 Procedure for the Development, Issuance, and Maintenance of the California High-Speed Rail Authority Policies and Procedures, Tier 2 Procedure Document (previously PROC-ADM-10) requirements.

Auditee Response

The RMO agrees with intent of this finding as a comprehensive update is currently taking place and the PCM [Program Controls Manual] will be completed no later than December 2023.

Auditor Analysis of Response

We agree with the corrective action identified.

Issue 4: Lack of Supporting Documents for Review Comments/Recommendations

Review comments/recommendations made during the monthly schedule progress review were not documented. In our sample of 15 monthly schedule progress reviews for the Construction Packages, the review comments/recommendations from the Program Controls Scheduling Unit were communicated to the Project and Construction Management teams verbally and/or via email. Emails detailing their comments/recommendations were not maintained, therefore we could not determine if their comments were resolved.

Without documentation, we could not determine compliance with the Program Scheduling Management Unit Procedure, which states that the unit reviews and provides comments on monthly schedule submittals by the contractor. Furthermore, Federal Standards for Internal Controls state that management's clear documentation of internal controls and all transactions allowing for documentation to be readily available for examination is a requirement for the effective design, implementation, and operating effectiveness of the entity's internal controls system.[2] Lack of documented support of the control activities can jeopardize effectiveness of the Program Controls Branch's internal controls system.

Recommendation

The Program Controls Branch should develop a consistent procedure for feedback provided to the Project Construction Management teams for the Design Builders' monthly schedule submittals. The feedback provided to the Project Construction Management teams based on the Program Control Branch's review should be documented and maintained per the Authority retention policy.

Auditee Response

The RMO agrees with this finding, as the practices undertaken currently reflect the proper level of documentation, including note taking and meeting minutes as applicable. The PCM will be updated to set the expectations on documenting the interactions and this update will be completed no later than December 2023.

Auditor Analysis of Response

We agree with the corrective action identified.

Observation 1: Lack of Employee Contingency Plan

The Program Controls Scheduling Unit does not have an employee contingency plan. Three of four schedulers initially interviewed in June 2022 were no longer with the unit within four months of the interview. Per February 17, 2023 Authority organizational chart, there are two vacant positions (TILOS Scheduler and Senior Scheduler) in the Program Controls

---

[2] GAO Standards for Internal Control in the Federal Government (Green Book) Principle 10.03

Scheduling Unit consisting of three Senior Schedulers, one TILOS Scheduler, and one Program Schedule Lead. Federal Standards for Internal Controls identify that management defines succession and contingency plans for key roles to help the entity continue achieving its objectives and those contingency plans are in place to respond to personnel changes that could compromise the internal control system. [3] As schedule management is an objective of the Authority; therefore, a contingency plan should be in place.

The Program Controls Scheduling Unit provided documentation that address the succession plan. The Rail Delivery Partner (RDP) Work Plan 4X was provided, however, the plan does not address transitioning for Schedule Management Support (Task 10). Additionally, they provided a draft Work Plan Zero which does in part define the tasks for the Program Delivery Support (PDS) team to facilitate the transition from the RDP contract to the PDS contract for Task 10.

The lack of a contingency plan coupled with outdated procedures could lead to inconsistencies in the work performed.

Recommendation

The Program Controls Branch should develop an employee contingency plan along with updates to their procedures to reduce the risk of inconsistencies in the work performed by employees/consultants.

Auditee Response

The RMO agrees with the intent of this finding and is currently updating its procedures and will also create a contingency management plan for the Risk Management Office (which will include the Program Controls Branch). These improvements will be completed by December 2023.

Auditor Analysis of Response

We agree with the corrective action identified.

---

[3] GAO Standards for Internal Control in the Federal Government (Green Book) Principle 4.06-4.08

CALIFORNIA High-Speed Rail Authority

Memorandum

DATE: April 14, 2023

TO: Paula Rivera, Chief Auditor, Audit Office

FROM: Jamey Matalka, Director of Risk Management and Project Controls, Risk Management Office

SUBJECT: Response to Program Schedule Management Draft Audit Report

The Risk Management Office (RMO) appreciates the opportunity to provide a response to the Program Schedule Management Audit (May 2019 to April 2022) Final Report and appreciates that the audit report recognizes the RMO has (1) documented processes in place and schedule management practices generally comply with the schedule management procedures; (2) the process improvement efforts of the RMO to date, (3) that there has been an improvement in the schedule management documentation of review tools/reports used during our monthly schedule review, and (4) the RMO implemented a consistent delay assessment process and is currently reviewing and updating their desk procedures.

The Authority's Project Controls Manual (MANUAL-PRCN-01) establishes a governing structure for management and control of the Program-wide scope, cost and schedule. Within this manual Section 1.2 outlines the management of the Program's schedule, including an overview of the processes, data, measurement of progress, reporting, and change. The manual goes further to outline the leading industry schedule management tools used, such as Primavera P6 software for developing the baseline schedules of the overall program and projects and utilizing Deltek Acumen Fuse for quality assessments of contractor's schedules. These tools are used by the Authority's scheduling staff to record status updates, assess performance, forecast trends and deviations, and record changes to the overall Program's scheduling data. The Program-wide baseline schedule (i.e., the Program Master Schedule) is the mechanism for Program-wide planning and project delivery, monitoring and reporting progress, and identifying variances. The Authority updates the master schedule and reports the updates to the Authority's Program Delivery Committee monthly through the Program Delivery Status Report.

The audit concluded that the Program Schedule management process is documented for managing the schedule. However, there were five issues noted that outlined recommendations for improving our documentation and processes. The RMO developed responses for each issue noted:

Issue 1: Lack of Written Processes and Procedures for Projects Outside Construction Packages

Auditee Response

The RMO agrees with this finding. While the practice of managing the schedule is occurring, as documented by the monthly reporting of program schedule status in the Program Delivery Status Report, the Program Controls Manual is lacking the process and procedures in practice for managing schedules outside of the construction packages. The RMO will be updating its Project Controls Manual to clearly identify the employed practices, procedures, and processes for managing schedules of projects outside of the Construction Packages.

The Project Controls Manual is undergoing a significant update since its last revision and this recommendation response actions will be completed no later than December 2023.

Issue 2: Updates to Program Schedule Procedure Documents are Needed

Auditee Response

Overall, the RMO agrees with the recommendation from the Auditor to revise and update procedures and manuals to align with current practices; however, the RMO would like to respond individually to each of the examples reported in the audit under Issue 2.

Example 1: The RMO agrees with this part of the finding, as the practices undertaken today are far more exhaustive than in prior years and the Project Controls Manual (PCM) has not yet caught up with the new practices (e.g., Causation and Chronology analyses). This update will be rolled into the comprehensive update currently taking place and will be completed no later than December 2023.

Example 2: The RMO agrees with the intent of this finding, as the PCM is ready for a refresh which is currently underway and the procedure should reflect all the ways the Master Schedule is updated.

Example 3: The RMO agrees with this part of the finding. This update will be rolled into the comprehensive update currently taking place and will be completed no later than December 2023.

Example 4: The RMO agrees with the intent of this finding, as the PCM is ready for a refresh which is currently underway.

Issue 3: Lack of Procedure Document Approval

Auditee Response

The RMO agrees with intent of this finding as a comprehensive update is currently taking place and the PCM will be completed no later than December 2023.

Issue 4: Lack of Supporting Documents for Review Comments/Recommendations

Auditee Response

The RMO agrees with this finding, as the practices undertaken currently reflect the proper level of documentation, including note taking and meeting minutes as applicable. The PCM will be updated to set the expectations on documenting the interactions and this update will be completed no later than December 2023.

Observation 1: Lack of Employee Contingency Plan

Auditee Response

The RMO agrees with the intent of this finding and is currently updating its procedures and will also create a contingency management plan for the Risk Management Office (which will include the Program Controls Branch). These improvements will be completed by December 2023.