SAN FRANCISCO PUBLIC UTILITIES COMMISSION INFRASTRUCTURE CONSTRUCTION MANAGEMENT PROCEDURES

SECTION: SFPUC INFRASTRUCTURE CONSTRUCTION MANAGEMENT

APPROVED:

PROCEDURE NO: 020

DATE: 6/7/2019

TITLE: PROJECT HISTORY/LESSONS

LEARNED

REVISION: 1

1.0 Policy

A Project History/Lessons Learned Report shall be prepared for all SFPUC Infrastructure Projects as part of the Project Closeout Process unless specifically instructed otherwise by the Construction Management Bureau (CMB) Manager.

This SFPUC Infrastructure CM Procedure applies to all personnel working on the SFPUC Infrastructure Projects during construction to the extent that their work is affected by this CM Procedure and does not conflict with specific SFPUC policies or the Contract under which the Work is executed.

2.0 Description

This SFPUC Infrastructure CM Procedure establishes the development of the Project History/Lessons Learned document. This document becomes part of the project dossier that is prepared by the Project Manager (PM) after the administrative closeout of a project's construction contracts. The purpose of this document is to capture information that will improve the design and construction of future projects, as well as improve the performance of the Construction Management staff.

3.0 Definitions

3.1 Project History/Lessons Learned Report

The Project History/Lessons Learned Report summarizes the scope of the project, cost and/or schedule growth, major issues, lessons learned, and implementation recommendations for similar future projects.

3.2 Lessons Learned

Lessons Learned is a formalized approach to gathering information that has affected construction, and from which future project teams can gain from these experiences and recommendations.

3.3 Construction Management Information System (CMIS)

The CMIS is an on-line management tool for the processing of contract documents based on established SFPUC CM Business Processes. It serves as a tool for effective storage and retrieval of various documents generated during a construction project. Access to the Project History/Lessons Learned node in the CMIS is only available to specific SFPUC staff and is not visible to vendors or Contractors.

4.0 Responsibilities

4.1 Construction Management Bureau (CMB) Manager

The CMB Manager manages the construction and close-out phases of all SFPUC Infrastructure Projects.

4.2 **Project Manager (PM)**

The PM is responsible for ensuring that the Project History/Lessons Learned Report is completed and included in the project dossier as part of the project close-out phase.

4.3 Resident Engineer (RE)

The RE ensures that issues and lessons learned are documented and filed in the project file or posted to the CMIS. The RE exercises judgment in the wording used in case it is later a subject of a Claim. The RE is responsible for preparing and submitting to the PM the Project History/Lessons Learned Report.

4.4 Construction Manager

The Construction Manager ensures that the documented issues and lessons learned are indeed valuable to the SFPUC and do not contain statements which could be detrimental to the City. The Construction Manager reviews the Issues/Lessons Learned Reporting forms as submitted by the RE as a precursor of data that will later be used in the Project History/Lessons Learned Report.

5.0 <u>Implementation</u>

5.1 Initiation

During the course of the construction phase, the RE and CM team members identify issues/lessons learned where SFPUC can improve operational procedures, documentation, and/or contract documents and where CM team members have observed inherently positive qualities about the project (i.e., team, relations, contract documents, administration, etc.).

5.2 Reporting Form

The RE coordinates and compiles the Issues/Lessons Learned Reporting Forms (see Attachment 020-1) received from the CM team and discusses the contents with team members to ensure agreement. Before project close-out, the RE submits these forms to the Construction Manager and the PM for approval. Once approved, the Administrative/Document Controls Specialist (ADCS) moves these forms into the project files. If the construction project utilized the CMIS, the RE creates a record in the CMIS and attaches the scanned forms.

5.2.1 The RE and CM team members can continue to refine and enhance the issue(s)/lesson(s) learned and recommendation(s) off-line; only the RE will have write-access to the report in the CMIS.

5.3 Review Process

The RE meets with the CM team on a regular basis to address identified issues/lessons learned during construction, determines resolution and, if required, flags an issue/lessons learned for transmittal to the appropriate Bureau Manager(s) for recommended action(s). Upon resolution by the appropriate Bureau, the recommended action(s) is returned to the RE and CM team members for a quality review and incorporated into the Issues/Lessons Learned Reporting Form.

5.3.1 Construction-related Issues

On a regular basis, the CMB Manager reviews current constructionrelated issues and directs its dissemination to all CM team members through organized training and education.

5.3.2 Engineering-related and other Bureaus' Issues

As required, the Engineering Management Bureau (EMB) Manager and other Bureau Managers are transmitted issues/lessons learned which are applicable to their areas of responsibility. Upon review, if a recommended action(s) has been developed, it is returned to the RE and CM team members.

5.3.3. Program-Level Issues

On a regular basis, the Construction Controls Manager compiles lessons learned relevant to the SFPUC Infrastructure program, prepares a trend report for the CMB Manager, determines the most appropriate means to disseminate the information, and, develops and implements education and training programs as requested.

5.4 Project History/Lessons Learned Report

After approval of the Issues/Lessons Learned Reporting Forms, the RE creates the Project History/Lessons Learned Report (attachment 020-2)

and submits it to the PM to be a part of the Project Close-out Report and project dossier.

6.0 Other Procedural Requirements

None

7.0 References

7.1 <u>Technical Specifications</u>

None

7.2 **SFPUC Infrastructure CM Procedures**

No. 021 Contract Close-out

7.3 Others

SFPUC Infrastructure Construction Management Plan, Section 2.2.9

8.0 Attachments

- 020 1 Issues/Lessons Learned Reporting Form
 020 2 Project History/Lessons Learned Summary Report Form
 020 3 Documents Distribution List for CMP No. 020
- 020 4 Revision Control Log

Attachment 020 -1 Issues/Lessons Learned Reporting - Form

CONSTRUCTION CONTRACT NO.:
PROJECT TITLE:
ISSUE /LESSONS LEARNED SUBJECT (reference below)*:
DESCRIPTION:
COST IMPACT:
SCHEDULE IMPACT:
RECOMMENDATION(s):
REPORT NO.:
ORIGINATOR /DATE:
*Subject Issue (examples – may be areas for improvement or positive attributes of the project/team): Budget, Schedule, Coordination, Communication, Project Team (CM Team, Contractor/Subcontractor), Safety, Quality, Stakeholders, Administration, Others.
DISTRIBUTION: RE, CM, PM

Attachment 020 -2 Issues/Lessons Learned Reporting – Form

Report NO.:		DATE:		
PROJECT NAME:				
CONTRACT NO.: VALUE:		SCHEDULE:		
PROJECT DESCRIPTION:				
SENIOR PROJECT MANAGER:				
RE:				
CONTRACTOR:				
SUBCONTRACTORS:				
LESSONS LEARNED SUMMARY				
ISSUES /LESSONS LEARNED SUNNARY DESCRIPTION	ISSUE */IMPACTS	RECOMMENDATIONS		
*Add relevant issues; note there may be nattributes of project/team.				
Budget, Cost, Schedule, Quality Safety, Contractor, Subcontractor, Environmental,		nation, Team Relations, Stakeholders,		
	REPORTED			
DATE:	БТ:			

Attachment 020 - 3 Document Distribution List for CMP No. 020

The following personnel listed (by project position or responsibility) for document distribution is a general guideline for specific CM Procedures. It is the responsibility of the ADCS to confirm and as necessary revise this list as appropriate for the specific project needs. The OE shall approve these distribution changes.

The guideline for hard copy document distribution is as follows:

- 1. Individual, without CMIS access, who attended a specific project meeting.
- 2. Individual, without CMIS access, who was mentioned or designated for action in a specific project meeting.
- 3. Individual, without CMIS access, who has management oversight responsibilities to ensure the implementation or completion of project action.

SPECIAL REPORTS:

- Project History/Lessons Learned Report Draft (TBD limited distribution)
- Project History/Lessons Learned Report Final (TBD distribution)

DISTRIBUTION:

Project Field Personnel – Information Only, Not Distribution

• RE, OE, Lead Construction Inspector, ADCS

Construction Management Bureau

• Construction Manager, CMB Manager

Program CM Consultant

• Program CM Consultant, Construction Controls Manager

Project Management Bureau

Project Manager, Senior Project Manager

Engineering Management Bureau

Project Engineer

Bureau of Environmental Management

• Environmental Construction Compliance Manager

Attachment 020 - 4 Revision Control Log

Revision No.	Revision Date	What changed?	
Rev 1	6/7/19	 Minor format changes; Attachments revised; Revision Control Log updated.	
Rev 0	11/14/16	Signed	