

**SAN FRANCISCO PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE CONSTRUCTION
MANAGEMENT PROCEDURES**

**SECTION: SFPUC INFRASTRUCTURE
CONSTRUCTION MANAGEMENT**

APPROVED: 

PROCEDURE NO: 049

DATE: 6/7/2019

**TITLE: CM CONSULTANT SERVICES
MONITORING AND REPORTING**

REVISION: 1

1.0 Policy

It is the policy to establish, monitor, forecast, and report schedules and budgets (man-hours and/or cost) for Construction Management (CM) tasks and subtasks for each SFPUC Infrastructure Construction Management (CM) project. This includes tasks performed by CM Consultants for CM Services and Engineering support services during construction.

SFPUC Infrastructure CM Services Progress Reports are prepared and submitted monthly by the Resident Engineer (RE) for each project to the Construction Manager (CM) for CM Projects.

This Procedure applies to all personnel working on the SFPUC Infrastructure CM program to the extent that their Work is affected by these SFPUC Infrastructure CM Procedures and does not conflict with specific San Francisco Public Utilities Commission (SFPUC) policies and the Contract under which the Work is executed.

2.0 Description

This Procedure establishes the requirements for the content, preparation, review and submittal of SFPUC Infrastructure CM Services Progress Reports.

3.0 Definitions

3.1 Forecast to Complete (FTC)

Forecast to Complete is the man-hours and/or cost to complete, or schedule duration to complete, as estimated by the RE from the current data date (end of reporting period).

3.2 Forecast at Completion (FAC)

Forecast at Completion is the total man-hours and/or costs, or schedule dates, when the work is forecast to be completed. Cost FAC equals actual man-hours/costs to date plus Forecast to Complete (FTC). Schedule FAC represents the date at which an activity is forecasted to be completed.

3.3 Variance

Variance is the difference between the approved budget or schedule and the FAC. A positive variance is FAC less than approved and a negative variance is FAC greater than approved.

3.4 SFPUC Infrastructure CM Services Progress Report

The SFPUC Infrastructure CM Services Progress Report is a monthly report prepared by the RE that summarizes for SFPUC management the current status and progress of the CM services, including CM Consultant costs and forecasts, Consultant engineering support services cost forecasts, schedule forecasts, variances from approved budgets and schedules, resource issues and plans, and any issues affecting the CM services (Attachment 049-1).

4.0 Responsibilities

4.1 Resident Engineer (RE)

The RE is responsible for preparing and submitting the SFPUC Infrastructure CM Services Progress Report to the CM for small CM Projects (smaller than \$100 Million), or to the CMB Manager for SFPUC Infrastructure large CM Projects (equal or greater than \$100 Million).

4.2 Field Contract Administrator (FCA)

The FCA with the help of the Construction Scheduler provides support services to the RE to prepare the SFPUC Infrastructure CM Services Progress Report.

4.2.1 The FCA reviews task expenditures for CM Consultant staff, updates accruals, and provides man-hours and/or cost to complete thus providing Forecasts to Complete (FTC) and schedule Forecasts at Completion (FAC).

4.2.2 The FCA works with the RE to establish FTC man-hours for CM staff and FTC for Consultant engineering support services.

4.3 Construction Manager (CM)

4.3.1 The Construction Manager (CM) receives and reviews the SFPUC Infrastructure CM Services Progress Report from the REs and provides additional status information concerning the CM contract. The information for all SFPUC Infrastructure CM projects is forwarded to the CM.

4.3.2 The CM compiles the reports received from every RE in the project, provides explanations of variances against plan, attaches a summary report and submits the entire package to the CMB Manager and copy to the PM.

4.4 Project Manager (PM)

The Project Manager (PM) receives and reviews a copy of the SFPUC Infrastructure CM Services Progress Reports from the City CM, and uses the information provided in the reports for the monthly P6 master schedule updates.

5.0 Other Procedural Requirements

5.1 SFPUC Infrastructure CM Services Progress Report Content

5.1.1 An overview summary of the CM contract status.

5.1.2 Summary of progress achieved and significant accomplishments by the CM Team. This should not duplicate the Construction Status Report but focus on progress and accomplishments by the CM team.

5.1.3 Outstanding and potential issues that could affect cost, schedule, or resource plans and requirements of the SFPUC Infrastructure CM services contract.

5.1.4 A narrative that explains any forecast variances from the approved schedule, budgets or resource plans.

5.2 Template Update

Each SFPUC Infrastructure CM Services Progress Report will include an updated Template for Reporting CM Services Costs and Forecasts (Per attachment 049-2) and a CM Services Schedule updated to show current schedule FAC.

5.3 Report Narrative

The RE will provide an overall narrative summary of the status of the consultant contract for his project. The CM will provide the same for a facility or Regional contract which comprises multiple projects. These reports will be forwarded to the PM and CMB Manager per paragraph 6.1.4 above.

5.4 Submittal Date

All CM Services Progress Reports are required to be submitted by the RE to the CM no later than the end of the 7th Working day after the end of the reporting period. The CM is required to forward all CM Services Reports to the PM and CMB Manager within 2 Working days of receipt. For large CM contracts which comprise more than one project and is prepared by the

CM, the CM shall submit to the PM and CMB Manager no later than the end of the 7th Working day after the end of the reporting period.

7.0 References

None

8.0 Attachments

- 049 - 1 Template for SFPUC Infrastructure CM Services Progress Report
- 049 - 2 Template for Reporting CM Services Costs and Forecasts (Budget Setup Example)
- 049 - 3 Template for Reporting CM Services Costs and Forecasts - Example
- 049 - 4 Instructions for Use of Template for Reporting CM Services Costs and Forecasts
- 049 – 5 Revision Control Log

Attachment 049 - 1
Page 1 of 3
Template for CM Services Progress Report

San Francisco Public Utilities Commission			
<Insert Program Logo HERE>	<Insert Program Title HERE>	<Insert Program Logo	
Region	<name>	Report Period	
Project Name	<use only for Specialty CM Projects>	Report Number	< 001, 002, etc>
Prepared By	<name of Project CM>	Date	
CM Consultant	<name>	RCM	<enter N/A for Specialty CM Projects>
RPM	<name>	City RCM	<name>
RCM OVERVIEW			
<brief summary of the report by the RCM including discussion of regional issues. Enter N/A for Specialty CM Projects. This area will expand>			
PROGRESS SUMMARY			
<PROJECT TITLE (use construction contract title)>			
<discuss overall progress of the CM Services and significant accomplishments since last report. This area will expand>			
<PROJECT TITLE (use construction contract title)>			
<discuss overall progress of the CM Services and significant accomplishments since last report. This area will expand>			
<PROJECT TITLE (use construction contract title)>			
<discuss overall progress of the CM Services and significant accomplishments since last report. This area will expand>			

Page 1 of 3
 <Insert Region or Specialty CM Project Name Here> <Insert Report Period Here>

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Page 2 of 3
Template for CM Services Progress Report

San Francisco Public Utilities Commission		
<Insert Program	<Insert Program Title HERE>	<Insert Program
<PROJECT TITLE (use construction contract title)>		
<discuss overall progress of the CM Services and significant accomplishments since last report. This area will expand>		
<PROJECT TITLE (use construction contract title)>		
<discuss overall progress of the CM Services and significant accomplishments since last report This area will expand>		
POTENTIAL ISSUES		
<discuss issues that could affect cost, schedule or resource plans and requirement of CM Consultant, City CM, City Engineering Services or Consultant Engineering Services. Address each project separately. This area will expand>		
MONTHLY FORECAST NARRATIVE		
<discuss forecast variances for the approved schedule or budget for CM Consultant, CM City staff, City Engineering Services, and/or Consultant Engineering Services. Address each project separately. This area will expand>		
ATTACHMENTS		

Page 2 of 3
<Insert Region or Specialty CM Project Name Here> <Insert Report Period Here>

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Page 3 of 3
Template for CM Services Progress Report

San Francisco Public Utilities Commission		
<Insert Program	<Insert Program Title HERE>	<Insert Program
Template for Reporting CM Services Cost and Forecasts		
WSIP CM Services Schedule		
<hr style="border: 2px solid blue;"/> Page 3 of 3 <Insert Region or Specialty CM Project Name Here> <Insert Report Period Here>		

Attachment 049 – 2 Template for Reporting CM Services Costs and Forecasts (Budget Setup Example)

CM SERVICES - BAY DIVISION REGION			BUDGET				Forecast																								EquipMent			ETC			FAC			Values																		
Position	Rate	Cl	HS	Sub	Labr	ES, Fee	Inst/Out	% Complete	HS	Labr	ES, Fee	Inst/Out	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Y1	Y2	Y3	HS	Labr	ES, Fee	Inst/Out	HS	Labr	ES, Fee	Inst/Out	HS	Labr	ES, Fee	Inst/Out							
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Attachment 049 – 3 Template for Reporting CM Services Costs and Forecasts - (Example)

CM SERVICES - BAY DIVISION REGION		SAMPLE - TEMPLATE FOR REPORTING CM SERVICES COSTS AND FORECASTS																																								
September 30, 2020 Estimation		BUDGET		Estimate by month by line												Estimate			ETC			FAC			Variable																	
Position		Rate	CD	HR	Rate	Labr	PL Fee	Tract Fee	Subcontract	Mat	Labr	Fee	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Y1	Y2	Y3	HR	Labr	Fee	Total	HR	Labr	Fee	Total	HR	Total				
1																																										
2																																										
3	CM CONSULTANT TASK 1 - BIDDING	50.00			500.00								500.00																													
4	CM CONSULTANT TASK 2 - BIDDING	50.00			500.00								500.00																													
5	CM CONSULTANT TASK 3 - BIDDING	50.00			500.00								500.00																													
6	CM CONSULTANT TASK 4 - BIDDING	50.00			500.00								500.00																													
7	CM CONSULTANT TASK 5 - BIDDING	50.00			500.00								500.00																													
8	CM CONSULTANT TASK 6 - BIDDING	50.00			500.00								500.00																													
9	CM CONSULTANT TASK 7 - BIDDING	50.00			500.00								500.00																													

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Instructions for Use of Template for Reporting CM Services Costs and Forecasts

Instructions for Use of Template for Reporting CM Services Costs and Forecasts

A standard template will be used for reporting as required by WSIP CM Procedure 064, *CM Services Monitoring and Reporting*. CM Services is defined for this procedure to include CM Consultant, City CM staff, City Engineering Services during construction, and Consultant Engineering Services during construction. All must be included in the Project CM's monthly report as defined below. The template will provide the basis for managing resources and costs of the CM Consultant Contract and provide input to the City Regional Construction Manager and the Regional Project Manager for updating P6 status and forecasts for consultants and City staff providing CM Services, and Engineering Services during construction.

The template provides for:

- A) Setup of the CM Consultant resource loaded (man-hour and cost) subtask budgets for each CM Contract Task (project/contract) and spread man-hours by month.
- B) Setup of City staff resource loaded (man-hour) budgets for each project/contract and spread man-hours by month.
- C) Setup of Engineering Services City staff man-hour budget for each project/contract and spread man-hours by month. City staff are entered as a single resource.
- D) Setup of Engineering Services Consultant cost budgets for each project/contract and spread costs by month. More than one Consultant can be entered.
- E) Monthly reporting of CM Consultant actual costs and forecasts to complete by Subtask and Task (project/contract) and total CM Contract.
- F) Monthly forecasting of City staff man-hours to complete.
- G) Monthly forecasting of Consultant(s) Engineering Services costs to complete.

Individual CM Consultant or City CM staff resources can be added at any time during a project. Rows can be added or hidden as needed for adding resources or reducing the size of the report. Columns must be added to expand the forecasting section to more than 3 years (the sample size) and additional columns for escalation must be added for CM services that are longer than the sample template's 3 year duration. Columns for months that precede the data date of the report should be hidden. Future year months should also be hidden after updating the forecasts to enable the width of the report to be printed on 11x17 landscape oriented paper. The format allows for 12 or more months of forecast to be viewed on 11x17 paper if the Escalation and Fee columns are hidden. Columns can be opened for QA checks.

Multiple tabs are used for Regional CM contract reporting. Tab 1 is the CM Consultant Contract summary information by Contract Task. Tabs 2 thru "y" are separate tabs for each project/contract included in the Regional CM Consultant's contract scope. Tabs can be titled by project or task name. A single spreadsheet is used for Specialty CM Contracts. City Staff and Consultant Engineering Services are not summarized in Tab 1; these budgets are not tracked above the project level.

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Instructions for Use of Template for Reporting CM Services Costs and Forecasts

Key Definitions:

ETC - estimate to complete.

FAC - forecast at completion (Expenditures plus ETC).

Variance – Budget Total minus FAC (a negative value indicates a forecast over-run).

Escalation – the cells in Row 6 are used to enter an escalation factor for CM Consultant labor. The escalation factors are applied to the forecast hours to complete for each calendar year to escalate the ETC Total costs.

Two sample templates are attached (Refer to Attachments 064-2 and 064-3) to illustrate the use of the template for initial budget setup and for monthly updating. The instructions below address both samples separately.

Initial Budget Setup

Attachment 064-2 sample template is based on the following parameters:

1. BDPL No 5 – East Bay is the first project to begin in the region.
2. Construction NTP is in April 2009.
3. Final Completion is in July 2011.

Template Setup – grey highlighted cells are not used:

1. Enter construction contract name in cell A1.
2. Column L is the first month of the CM services. The cell titles should be adjusted to reflect the appropriate year and month for Column L. Add columns as needed to encompass the entire duration of all CM services.
3. Setup up tabs for each project/construction contract.
4. Check that Tab 1 correctly summarizes region date and information. The user is responsible for verifying all cell formulae are correct. This is especially important when adding resources during a project.

CM Consultant Setup:

1. Enter position, name, and firm name for each Subtask for which CM will be providing services (Columns C, D, E).
2. Budget (Columns F, G, H) – enter total planned hours and billing rate for each resource. Enter Total Cost only for ODCs.
3. Make sure the 5% fee is entered in Column I for all subconsultant positions. This 5 % fee must also be entered correctly in the ETC and FAC sections of the template.
4. % Complete (Column I) is left blank for the initial setup.

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Instructions for Use of Template for Reporting CM Services Costs and Forecasts

5. Expenditures (Columns J and K). Enter the data date in cell J4. For initial setup this date should be the last Friday of the month preceding the first month CM services will begin.
6. Forecast (beginning Column L) – enter hours per month for each resource. No entry is required for ODCs.
7. Add columns in the Escalation section with an escalation factor for each year of the CM contract. In the sample, 3% per year is used.
8. Enter total cost budgeted for ODC's in Column "ETC Total" (Column BB in the sample template).
9. If subtasks are not yet scoped and negotiated at the time of initial setup, a temporary "resource" with a lump sum cost amount should be entered. The Lump Sum amounts must also be added in the ETC Total column. The total CM contract amount must always be summarized on Tab 1. If there is contingency included in the total contract amount, it can be added to Tab 1 or as a separate template "subtask" for Specialty CM Contracts. Ensure the integrity of cell formulae are maintained when a temporary resource cost is used and when the temporary resource is later replaced.

City CM staff Setup (can be added as early as known):

1. Enter position, name, and firm name (SFPUC) for each subtask for which City will be providing services (Columns C, D, E).
2. Budget (Column F) – enter total planned hours for each resource.
3. % Complete (Column I) is left blank for the initial setup.
4. Forecast (beginning Column L) – enter hours per month for each resource.

City Engineering Services Setup (can be added as early as known):

1. Budget (Column F) – enter total planned hours
2. % Complete (Column I) is left blank for the initial setup
3. Forecast (beginning Column L) – enter hours per month

Consultant Engineering Services Setup (can be added as early as known):

1. Budget (Column H) – enter total planned cost.
2. % Complete (Column I) is left blank for the initial setup.
3. Forecast (beginning Column L) – enter costs per month in \$1000's.
4. If more than one consultant is providing engineering services during construction, use a separate template "subtask" for each consultant.

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Instructions for Use of Template for Reporting CM Services Costs and Forecasts

Monthly Reporting

Grey highlighted cells are not used. Yellow highlighted cells denote date entry required.

Attachment 049-3 sample template is based on the following parameters:

1. The template has been updated for the August 2009 Monthly CM Services Report (status thru August 2009).
2. BDPL No. 5 – East Bay project. Pre-construction task (2.1) is 100% complete and construction is approximately 17% complete. Construction NTP was in April 2009 but Final Completion will be 30 days late (August 2011).
3. BDPL No. 5 – Peninsula pre-construction task (3.1) began in August 2009. Subtasks 3.2 thru 3.6 have not yet been negotiated.

CM Consultant Updates:

1. % Complete (Column I) – enter % at subtask level only.
2. Expenditures (Columns J and K). Enter the data date in cell J4. This date should be the last Friday of the month of the report. The sample template illustrates that the template has been updated for the August 2009 Monthly Report. Update actual man-hours for each resource thru the period closing date. Update actual costs for ODCs (cell K102) Costs should be estimated to include accruals to the extent practical.
3. Forecast (beginning Column L) – update/enter hours per month for each resource beginning the month after the month of the report. Monthly forecasting is not required for ODCs.
4. Enter estimated costs to complete for ODC's in Column "ETC Total" (Column BB in the sample template).

City CM Staff Updates:

1. % Complete (Column I) - enter % at subtask level only.
2. Forecast (beginning Column L) – update/enter hours per month for each resource beginning the month after the month of the report.

City Engineering Services Update:

1. % Complete (Column I) - enter % at subtask level only.
2. Forecast (beginning Column L) – update/enter hours per month beginning the month after the month of the report.

Consultant Engineering Services Update:

1. % Complete (Column I) - enter % at subtask level only.
2. Forecast (beginning Column L) – update/enter costs per month in \$1000's beginning the month after the month of the report.

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Instructions for Use of Template for Reporting CM Services Costs and Forecasts

The Monthly Report can be used by the City RCM and RPM as follows to update P6:

1. CM consultant subtask level data is reported to the PCE.
2. Provide % Complete, Expenditures (Cost) and ETC (Total).
3. The difference between Expenditures (Cost) and actual costs plus billed but not paid provided each month by the PCSB Cost Engineering Group is the “expended but not invoiced” component of accruals that is used to update P6.
4. The City RCM/RPM should check the monthly update from P6 to ensure there is not significant differences in what the P6 monthly update reports and what the CM Services Monthly Report included.
5. ETC (Hours) for City CM staff can be used to update P6 forecast to complete. P6 will contain the actual man-hours expended and the billing rates. Since actual man-hours will not be reported in the template, “variance” is not used after the initial setup. For initial setup, variance serves as a check that the spread of planned hours by month equals the total man-hour budget.
6. ETC (Hours) for City Engineering Services can be used as a summary level value to guide the RPM in updating ETC in P6. P6 will contain the actual man-hours expended by resource and the billing rates. The RPM will be required to distribute the ETC hours by resource in P6. Since actual man-hours will not be reported in the template, “variance” is not used after the initial setup. For initial setup, variance serves as a check that the spread of planned hours by month equals the total man-hour budget.
7. ETC (Total) for Consultant Engineering Services can be used as a summary level value to guide the RPM in updating ETC in P6. P6 will contain the actual costs. The RPM is responsible for providing any required accruals to the PCE. Since actual costs will not be reported in the template, “variance” is not used after the initial setup. For initial setup, variance serves as a check that the spread of planned costs by month equals the total cost budget.

**Attachment 049 - 5
Revision Control Log**

Revision No.	Revision Date	What changed?
Rev 1	6/7/19	<ul style="list-style-type: none">• Minor format changes;• Attachments revised;• Revision Control Log updated.
Rev 0	11/14/16	Signed