SAN FRANCISCO PUBLIC UTILITIES COMMISSION WATER SYSTEM IMPROVEMENT PROGRAM CONSTRUCTION MANAGEMENT PROCEDURES	
SECTION: WSIP CONSTRUCTION MANAGEMENT	**APPROVED:**
PROCEDURE NO.: 020 **TITLE: MONTHLY PROJECT CONSTRUCTION PROGRESS REPORTS**	**DATE: 12/22/10** **REVISION NO.: 3**

1.0 Policy

Monthly Project Construction Progress Reports are prepared and submitted each month by the Project Construction Manager (Project CM) to the Regional Construction Manager (RCM) for Regional CM Projects and directly to the Regional Project Manager (RPM) for specialty CM projects. The Reports provide status on the progress of the Construction Contract and provide Forecasts of Schedule and Cost to the RPM for WSIP Monthly Status Reports.

This CM Procedure applies to all personnel working on the Water System Improvement Program (WSIP) to the extent that their Work is affected by these WSIP Construction Management (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 CM Procedure establishes the requirements for the content, preparation, review and submittal of the Monthly Project Construction Progress Reports to the Regional Project Manager.

3.0 Definitions

3.1 Monthly Project Construction Progress Report

The Monthly Project Construction Progress Report is a monthly report prepared by the Project CM that summarizes for SFPUC management, the progress, issues, and variances from plan, and cost and schedule forecasts for a construction contract. The monthly report includes narrative explanations of the data that is reported.

3.2 Monthly Schedule Update

The Monthly Schedule Update is the updated CPM Construction Schedule prepared and submitted by the Contractor with the Application for Payment. The Monthly Schedule Update includes a narrative explaining progress variances and recovery plans.

3.3 Summary Schedule

The Summary Schedule is a schedule update provided by the Contractor each month with the updated CPM construction schedule. It summarizes the Updated CPM Schedule and includes planned system shutdowns and contractual milestones.

3.4 Risk Register

The documentation tool used to identify, assess, and assign risks and define how risks are to be strategized, controlled, mitigated and managed. Refer to CM Procedure No. 034 Risk Management Plan Preparation, Approval and Implementation.

3.5 Trends

Any expected deviation from the approved schedule or contract amount, that is not yet a potential change, is a trend. Trends may result from:

- Issues that are identified and tracked in CMIS;
- Analysis of the rate of expenditure of unit price items or allowance items vs. progress;
- Actual vs. planned schedule progress; or
- Quality issues.

In short, anything that is occurring that is not yet a potential change that the Project CM believes has a high probability of becoming a change to the contract amount or schedule. Trends are not included in the Forecast at Completion.

3.6 Risks

A Project Risk is a potential event, failure or condition that, if it occurs, will have a negative or positive impact to the project or program.

- **Risks vs. Trends:** Risks are events that have not occurred but if they do occur have the potential to impact the project. Trends derive from known facts or circumstances that have occurred but are not yet defined in the Change Order process and represent the Project CM's best assessment of the potential impact to the project.
- **Open Risks:** Risks identified in the Project Risk Register that are active (not expired). The risk may or may not have occurred and continues to pose a threat. The Expiration Date is a date later than the current data date.

- **Mitigated Risks:** Risks where all mitigation activities have been executed and the likelihood and/or impact has been reduced to a level that the project is willing to accept if the risk occurs. The risk may or may not have occurred and the Expiration Date is a date later than the current data date.

3.7 Potential Change Orders

Potential Change Orders are changes that have been identified by COR/PCO, but negotiations have not been completed.

3.8 Pending Change Orders

Pending Change Orders are changes that have been accepted and negotiated, but not yet certified by the City Controller.

3.9 Approved Change Orders

Approved Change Orders are changes that have been certified by the City Controller.

3.10 Unilateral Change Orders

When time does not allow for a change order to be negotiated through the PCO process, or when the City and Contractor are unable to agree on the cost or time required to complete the change in the Work described in a PCO, the City may issue a Unilateral Change Order instructing the Contractor to proceed with the Work based on City's estimate of cost and time to perform the change in the Work.

3.10 Rejected Change Orders

Rejected (or closed) Change Orders are changes that have been rejected by the City or otherwise withdrawn by the Contractor.

3.11 Revised Contract Amount

The Revised Contract amount is the arithmetic sum of the Original Contract Amount and the current Approved Change Orders.

3.12 Forecast At Completion (FAC)

The (cost) Forecast At Completion is the arithmetic sum of the current Pending Change Order and Potential Change Order amounts to the Revised Contract amount.

The (schedule) Forecast At Completion is the arithmetic sum of the current time extensions to the Substantial and Final Completion dates negotiated in the Pending Change Orders and the current delays expected from the Potential Change Orders.

The Forecast At Completion does not include Trends, which are shown separately.

3.13 Change Order Categories

Change Orders and Trends must be classified by the Project CM into the following categories:

- **Design Errors** – changes in work due to errors or deficiencies in the design.
- **Design Omissions** – changes in work due to omissions in the design that would have been included in the bid documents under the original project scope.
- **Differing Site Conditions** – changes in work due to new site information not identified during design and included in information at time of bid, or not considered "foreseeable" under through due diligence of the Contractor or risk assigned to the Contractor.
- **Regulatory Requirements** – changes in work mandated by regulatory agencies that are different than approved permit conditions at time of bid.
- **Owner Requested** – changes in work which modify or add scope that are requested and initiated by SFPUC and are not due to design errors, design omissions, differing site conditions, or regulatory requirements.
- **Other** – changes in work required for all other reasons, including emergency work, adjustment of bid quantities, force majeure events, incentive payments, accepted substitutions, use of allowances, and VECPs.

3.14 Critical Activities

Activities in the current approved CPM schedule with a Total Float less than 1 day. The percentage of Critical Activities is the number of Critical Activities divided by the total number of Activities in the CPM schedule.

3.15 Percent Complete:

- **Baseline Planned Early**: the planned percent complete as of the data date according to the early dates of the Approved Baseline CPM Schedule
- **Actual to Date**: the Earned Value to date divided by the Current Contract Amount. This percentage should equal the percent invoiced to date.
- **Baseline Planned Late**: the planned percent complete as of the data date according to the late dates of the Approved Baseline CPM Schedule

3.16 Contingency

- **Commission Approved Construction Contingency**: Amount of Construction Contingency approved by the Commission at the time of award.
- **Additional Construction Contingency**: Amount of Additional Construction Contingency approved by the WSIP Director above the Construction Contingency approved by the Commission at the time of award.
- **Total Contingency:** The sum of the Commission Approved Construction Contingency and the Additional Construction Contingency.
- **Remaining Contingency FAC**: The amount of Contingency remaining after the Approved Changes, the Pending Changes, the Potential Changes, and the Trends are deducted from the Total Contingency.

3.17 Quality Non-Conformance Notices (NCN)

Quality deficiencies and Non-Conformances are defined as documentation, drawings, material, and equipment or Work not conforming to the specified requirements or procedures. A deficiency should be communicated to the Contractor at the time it is observed and documented in the Daily Inspection Report. When a deficiency is not corrected in a pre-established timely manner or when it can be expected to affect the progress of the work, the Project CM will issue a Non Conformance Notice (NCN). The NCN records a breach of quality and, as such, is issued to the Contractor with a request for response within a reasonable time, usually within 5 days.

3.18 Environmental Non-Conformance Notices (NCN)

Environmental Non-Compliance Notices document events and activities that are not in compliance with project mitigation measures, permits, and agency agreements. An Environmental Non-Compliance Notice is also assigned to an activity that places sensitive resources at risk. Notices also document activities that are not in compliance with environmental requirements included in the Contract Documents.

3.19 Environmental Minor Project Deviation (MPD)

A Minor Project Deviation is a document prepared by the Regional Environmental Compliance Manager (RECM) for a modification from some aspect of the project's environmental requirements.

4.0 Responsibilities

4.1 Project Construction Manager (Project CM)

The Project CM is responsible for preparing and submitting the Monthly Project Construction Progress Report to the RPM for a Specialty CM Project, or the Regional Construction Manager (RCM) for a Regional CM Project, and for explaining the impacts of issues and variances. The Project CM ensures that the project CM team is aware of and utilizes the trending system for early detection of cost or schedule variances. The Project CM assesses the potential cost and schedule impacts of Trends and reports accordingly.

4.2 Field Contracts Administrator (FCA)

The FCA maintains change logs, provides status of potential and pending changes, and provides input to the Project CM for forecasting costs to complete. The FCA documents, updates, monitors and reports Trends utilizing the Trend Log in CMIS.

4.3 Construction Schedule/Cost Specialist

The Construction Schedule/Cost Specialist provides scheduling support services to the Project CM for the preparation of the Monthly Project Construction Progress Report. The Construction Schedule/Cost Specialist reviews the Contractor's Monthly Schedule Updates and Summary Schedule, and provides an assessment of progress against the Approved CPM Baseline Schedule. The Construction Schedule/Cost Specialist estimates the Forecast At Completion date for Substantial Completion and for Final Completion based on the contractor's Monthly CPM Schedule update, and estimated time delays resulting from pending changes, and potential changes. The contractor's Monthly CPM Schedule update must include approved change orders. The Construction Schedule/Cost Specialist estimates the Forecast At Completion dollar amount based on the original contract amount, approved change orders, pending changes, and potential changes.

4.4 Regional Project Manager (RPM)

The RPM receives the Monthly Project Construction Progress Reports from the Project CM for Specialty CM Projects or the RCM for Regional CM Projects. The RPM provides forecasts of costs to complete and schedule completion to the Regional Project Controls Engineer for updating the Master Project Schedule. The RPM reports on progress and provides explanations of variances against plan to WSIP management each month.

4.5 Regional Construction Manager (RCM)

The Regional Construction Manager (RCM) receives and reviews the Monthly Project Construction Progress Report from the Project CM. The information for all regional projects is forwarded to the Regional Project Manager.

4.6 Risk Analyst

Upon completion of the Risk Management Monthly update, the Risk Analyst will email the revised Risk Register (output from ARM) to the Project CM for approval and post to the S drive. The Risk Analyst will provide to the Project CM all relevant statistical data used for the Monthly Construction Report Risk Management Status section.

5.0 Implementation

5.1 Contractor's Monthly Schedule Update Submittal

5.1.1 The Contractor prepares and submits the Contractor's Monthly Schedule Update and Summary Schedule with the Application for Payment on the 25th day of each month.

5.2 CM Team Review

5.2.1 The Project CM and Construction Schedule/Cost Specialist review the Monthly Schedule Update for conformance to the requirements of the Contract and to identify any issues.

5.2.2 The Project CM prepares the Monthly Project Construction Progress Report based on the project teams' assessment of the Contractor's progress and data compiled and maintained by the Project CM on contract changes, safety, quality, environmental compliance, submittals, risk management, and public outreach.

5.3 RCM and RPM Reviews

5.3.1 The Project CM submits the Monthly Project Construction Progress Report to the RCM for Regional CM projects, or to the RPM (for Specialty CM projects).

5.3.2 The RCM reviews and forwards all WSIP Regional Monthly Project Construction Progress Reports to the RPM.

5.3.3 The RPM reviews the reports and provides progress and cost and schedule forecast data to the Regional Project Controls Manager for updating the Master Project Schedule and for the WSIP Monthly Status Report.

6.0 Other Procedural Requirements

6.1 Monthly Project Construction Progress Report Content

The Project CM will use a standard format to include:

6.1.1 Status of Safety Plans, Incidents and Compliance;

6.1.2 Overview of progress planned and achieved;

6.1.3 Summary of Schedule Status and Forecast to include Milestones, Operational Shutdowns and Schedule Issues and Summary Schedule;

6.1.4 Contract Cost Status and Forecast of Cost at Completion (FAC).;

6.1.5 Change Management Summary;

6.1.6 Summary of Quality Issues and Results;

6.1.7 Summary of Submittals and Request for Information (RFI);

6.1.8 Summary of Environmental Compliance;

6.1.9 Public Outreach Activities;

6.1.10 Outstanding and Potential Issues that could affect cost, schedule, quality, and coordination with other current and future projects;

6.1.11 Agreements made;

6.1.12 Contacts with other agencies; and,

6.1.13 Attachments – Construction Summary Schedule, Change Log, and Risk Register.

6.2 Submittal Date

The **Project CM is required** to provide an electronic copy of the Monthly Project Construction Progress Reports, including attachments, to the PCM Document Control Specialist to post to the "S" drive (S:\Construction Progress Reports) no later than the **10th day of the following month**. The Project CM is responsible to obtain the RCM and RPM approval of this report by this date.

7.0 References

7.1 Technical Specifications

No. 01310 Progress Schedules

7.2 CM Procedures

No. 015 Construction Schedule Management

No. 034 Risk Management Plan Preparation, Approval, and Implementation

7.3 Others

None

8.0 Attachments

020-1 Format for Monthly Project Construction Progress Reports (a Word Template will be provided to each Project CM)

020-2 Revision Control Log

Attachment 020 - 1
Page 1 of 6
(a Word Template will be provided to each Project CM)

HETCH HETCHY WATER SYSTEM IMPROVEMENT PROGRAM

MONTHLY PROJECT CONSTRUCTION PROGRESS REPORT

Project	<name>			Project Number	CUW
Contract	<name>			Contract Number	
Report Period	<month> <year>			Date Submitted	
Data Date		Contractor	<name>		
Project CM	<name>	RCM	<name>		

SAFETY

Contractor Safety Plan Approved (check one)	☐ Yes ☐ No	Date Approved	
CM Safety Plan Approved (check one)	☐ Yes ☐ No	Date Approved	

AMENDMENTS TO SAFETY PLANS

<describe any Amendments and reasons for and date approved. This area will expand>

SAFETY RECORD

Number of Hours Worked this Period		Number of Hours Worked Year To Date		Number of Hours Worked To Date	
Number of Incidents this Period		Number of Incidents Year To Date		Number of Incidents To Date	
Number of Lost Work Days this Period		Number of Lost Work Days Year To Date		Number of Lost Work Days To Date	
Number of Near Misses this Period		Number of Near Misses Year To Date		Number of Near Misses To Date	

INCIDENTS/LOST WORK DAYS/NEAR MISSES THIS PERIOD AND CORRECTIVE ACTIONS

<discuss record of incidents/lost work days/near misses this period and corrective actions. This area will expand>

OVERVIEW OF PROGRESS

<discuss overall construction progress since last report. This area will expand>

Page 1 of 6
<Insert Contract Name Here> <Insert Report Period Here>
Rev 3 Template

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MONTHLY PROJECT CONSTRUCTION PROGRESS REPORT

SUMMARY OF SCHEDULE STATUS

Total Float of Most Critical Path:		(Days ahead / behind schedule)			
Number of Activities in the CPM Schedule		Number of Critical Activities (TF<1)		Percentage of Critical Activities	

<discuss planned vs. actual progress being reported on the attached Summary Schedule and any significant variances from plan (include recovery actions). This area will expand>

SCHEDULE ISSUES AND FORECAST

<discuss any schedule issues and forecasts for shutdowns, key milestones, and completion and forecast completion dates of schedule and final completion. This area will expand>

PERCENT COMPLETE

Baseline Planned Early:	%	Actual To Date:	%	Baseline Planned Late:	%

QUALITY

Contractor Quality Plan Approved (check one)	☐ Yes ☐ No	Date Approved	<date>
CM QA Plan Approved (check one)	☐ Yes ☐ No	Date Approved	<date>
Number of NCN's Issued To Date		Number of NCN's Open	
Number of NCN's Issued This Period			

STATUS OF SUBMITTALS AND RFI'S

Number of Submittals Issued To Date	
Number of Submittals Issued This Period	
Average Turnaround Time (work days)	
Number of RFI's Issued To Date	
Number of RFI's Issued This Period	
Average Turnaround Time (work days)	

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MONTHLY PROJECT CONSTRUCTION PROGRESS REPORT

ENVIRONMENTAL COMPLIANCE			
Number of NCN's Issued To Date		Number of NCN's Open	
Number of MPD's Issued To Date		Number of MPD's Open	
<discuss Compliance Issues/NCN's/Durations since last period and status. This area will expand>			

PUBLIC OUTREACH
<summarize Public Outreach activities since last report. This area will expand>

AGREEMENTS MADE
<describe nature and purpose of agreements. This area will expand>

CONTACTS WITH OTHER AGENCIES
<this area will expand>

Attachment 020-1
Page 4 of 6
(a Word Template will be provided to each Project CM)

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MONTHLY PROJECT CONSTRUCTION PROGRESS REPORT

COST STATUS AND FORECAST		
A. Original Contract Amount	$	
B. Approved Changes	$	
Revised Contract Amount	$	A+B
C. Pending Changes	$	
D. Potential Changes	$	
Construction Contract FAC	$	A+B+C+D
Trends	$	
Note: (+) equals increased cost and (-) equals cost reductions		
Actual Cost To Date	$	

CONTINGENCY MANAGEMENT SUMMARY				
E. Commission Approved Construction Contingency	$			
F. Additional Construction Contingency	$			
G. Total Contingency	$	E+F	%	G/A
H. Total Changes (Approved, Pending and Potential)	$	B+C+D	%	H/A
J. Trends	$		%	J/A
Remaining Contingency FAC	$	G-(H+J)		

Number of Changes	Owner Requests	Differing Site Conditions	Design Errors	Design Omissions	Regulatory Requirements	Other	Total
Approved	#	#	#	#	#	#	#
Pending	#	#	#	#	#	#	#
Potential	#	#	#	#	#	#	#
Total Amount:	$	$	$	$	$	$	$
Trends	$	$	$	$	$	$	$
Note: (+) equals increased cost / (-) equals cost reductions							

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<Insert Contract Name Here> <Insert Report Period Here>
Rev 3 Template

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MONTHLY PROJECT CONSTRUCTION PROGRESS REPORT

FORCE ACCOUNT /UNILATERAL CHANGE ORDERS

<describe any Force Account or Unilateral Change Orders added to the Change Order Log since last report. This area will expand>

CHANGE ORDER AGING ANALYSIS

Approved Changes Average Days from date of initial entry to final approval	
Pending Changes Average Days From Initial entry to Data Date	

SCHEDULE CHANGES SUMMARY

	Substantial Completion	Days (+ / -)	Final Completion	Days (+ / -)
Original Contract	<date>		<date>	
Approved Changes	<date>		<date>	
Pending Changes	<date>		<date>	
Potential Changes	<date>		<date>	
Trends	<date>		<date>	

OUTSTANDING AND POTENTIAL ISSUES

<describe priority issues that may affect schedule, cost, quality, system shutdowns, coordination with other projects, public communications, or environmental. This area will expand>

(a Word Template will be provided to each Project CM)

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MONTHLY PROJECT CONSTRUCTION PROGRESS REPORT

RISK MANAGEMENT STATUS

ACTIVE RISKS	NO.		ACTION ITEM Type	NO.		RISK LEVEL	NO.
Open			Active Action Items (In progress)			Extreme	
Mitigated			Overdue Action Items			Very High	
Total						High	

<Top 3 Project Risks:>

<1 - ARM Risk ID - Brief Risk Description - Explanation of Issues, Actions, Progress etc.>
<2 - ARM Risk ID - Brief Risk Description - Explanation of Issues, Actions, Progress etc.>
<3 - ARM Risk ID - Brief Risk Description - Explanation of Issues, Actions, Progress etc.>

<this area will expand>

ATTACHMENTS

Summary Schedule
Change Log
Risk Register

Attachment **020 – 2**
Revision Control Log

Revision No.	Revision Date	What changed?
Rev 3	December 22, 2010	• Revised Section 3.0; 3.16 • Revised Attachment 1 – Report Form
Rev 2	July 26, 2010	• Added *Monthly* to title: Monthly Project Construction Progress Report – revised throughout document • Added/Revised Section 3.0; 3.4, 3.13, 3.16, 3.17, 3.18 and 3.19 • Revised Section 4.0; 4.3 • Revised Section 5.0; 5.1, 5.2.1, and 5.2.2 • Revised Section 6.0; 6.1.13, and 6.2 • Revised Section 7.0; 7.2 • Revised Attachment 1
Rev 1	August 25, 2009	• Revised Section 5.3.3 • Revised Section 7.0 • Revised Attachment 1; Page 4 of attachment 1 - Title was: "NCN's Issued Since Last Report", **New Title**: ***Status of Submittals and RFI's*** • Added Attachment 2; Documents Distribution List • Added Attachment 3; Revision Control Log
Rev 0	February 16, 2009	Signed