San Francisco Public Utilities Commission
Water System Improvement Program

Construction Management Business Processes

<table>
<thead>
<tr>
<th>SECTION: WSIP Construction Management</th>
<th>APPROVED:</th>
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<tr>
<td>BUSINESS PROCESS NO.: 001c</td>
<td>DATE: 02/12/09</td>
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<tr>
<td>TITLE: VALUE ENGINEERING CHANGE PROPOSAL (VECP)</td>
<td>REVISION: 0a</td>
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The Construction Contract contains instructions for the initiation, control, processing, review and approval of Value Engineering Change Proposals (VECP). VECPs are changes to plans, specifications or other requirements of the Contract Documents relating to contractually required items, types of construction or processes of Work proposed by the Contractor after the Award of the Contract resulting in reduced construction costs.

The Construction Management Information System (CMIS) is used by the Contractor to initiate and submit VECPs and by the Project Construction Management team to control, process, document and log VECPs. This Business Process Report describes the process for the initiation, control processing and approval of VECPs.

This Business Process 1c supersedes the portion of Business Process 1, issued July 27, 2008, that described the business process for initiation, submittal, control, processing and documentation of Requests for Deviations (RFD).

Value Engineering Change Proposal Business Process

VECPs may be submitted by the Contractor to the Project Construction Manager (Project CM) at any time following the award of contract by entering the VECP directly into the CMIS RFI/VECP/RFS module. Security protocols will ensure Contractors have access only to create a VECP, edit the question and to attach required documents to support its evaluation and approval or rejection. The Contractor must reference the pertinent contract, specification section and include all documentation in electronic format, as described in the following paragraphs. The CMIS will sequentially number the VECP. The Project Construction Manager (Project CM), as City Representative, will, at his/her sole discretion consider any VECP the City shall notify the Contractor in writing of an acceptance or rejection of the VECP within 30 days or receipt.

The Contractor may submit a preliminary Conceptual VECP, which reduces the Contractor’s risk of subsequent rejection of a Final VECP, but the City’s preliminary review of a Conceptual VECP does not commit the City to the eventual approval of a Final VECP.
The Contractor’s submittal of a VECP shall include complete supporting data, in electronic format to the extent possible, as follows:

<table>
<thead>
<tr>
<th>Conceptual VECP</th>
<th>Final VECP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement</td>
<td>Submitted as Final</td>
</tr>
<tr>
<td>Description</td>
<td>Submitted as Conceptual</td>
</tr>
<tr>
<td>Description</td>
<td>General description of the difference and advantages and disadvantages</td>
</tr>
<tr>
<td>Description</td>
<td>Detailed description of the difference and advantages and disadvantages</td>
</tr>
<tr>
<td>Plans, Drawings</td>
<td>Conceptual plans and description of proposed</td>
</tr>
<tr>
<td>Specifications</td>
<td>Itemization of Contract requirements to be changed and drawings and specifications affected</td>
</tr>
<tr>
<td>Cost and Schedule</td>
<td>Estimated of anticipated savings and schedule impact</td>
</tr>
<tr>
<td>Schedule</td>
<td>Cost comparison following COR Cost Proposal process summarizing items changed from original Contract work, not to include reduction in inspection, testing or City overhead. Statement detailing impact on the Baseline Project CPM Schedule</td>
</tr>
<tr>
<td>Statement of Required Implementation</td>
<td>When response is required from City; time required to prepare a Final VECP; required implementation date of Change Order for maximum benefit When response is required from City to avoid delays; required implementation date of Change Order for maximum benefit</td>
</tr>
<tr>
<td>Previous use</td>
<td>Description, date, contact information; if previously used on a City project, contract number, date, and city action</td>
</tr>
<tr>
<td>Life cycle costs</td>
<td>If required by the City</td>
</tr>
<tr>
<td>Contractor</td>
<td>No restrictions on use or disclosure; coordination into Work; waiver of additional costs/time extension; agreement not to hold City liable regarding acceptability or attributable delays</td>
</tr>
<tr>
<td>certification</td>
<td></td>
</tr>
</tbody>
</table>

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The Project CM will determine if a VECP qualifies for consideration and evaluation, and may reject any VECP that requires excessive review time or cost or does not generate sufficient benefits to warrant review or are not consistent with the project’s design, criteria or schedule. The Project CM may, with the Contractor’s concurrence, modify the VECP prior to or based on the review response to enhance it. If the Project CM accepts a VECP, the Office Engineer (OE) is responsible to route it for review and approval. Other than the date identified by the Contractor for a required response, there is no contractual review duration. There will be one Primary Reviewer for a VECP; since most VECPs concern the technical character of the project and its products, equipment or services, the Project Engineer will generally perform this role. The primary reviewer is responsible for obtaining input from any other member of the project team necessary and inputting a single response into the CMIS. The primary reviewer will have the capability obtain input from as many secondary reviewers as necessary using the Inbox function to distribute the VECP to CMIS users or via email to non-users, and to track responses using the “Distribution” function.

An approved VECP will necessitate a change to the Contract documents; therefore, the approval answer will include a directive from the Project CM to the Contractor to initiate a Change Order Request, following the process described in Business Process Report 3a. The COR must be submitted within 5 working days of the approval of the VECP. The Change Order must specifically state that it will be executed pursuant to Specification Section 01635, “Value Engineering Change Proposals” so that the City may track cost savings associated with VECP. Cost savings will be shared equally by the Contractor and the City.

Business Process

The Contractor uses the CMIS to add a Conceptual or Final VECP record, inputting all descriptive data and attaching the required attachments, and addresses it to the Project CM. the Contractor uses the CMIS Ball in Court function to forward the VECP to the OE for action. The OE reviews the VECP for completeness and compliance with the Contract Specification Section 01635, I, enters the Project File code into the CMIS and determines the Primary reviewer. If the VECP is not compliant, the OE will reject it and return it to the Contractor for re-submittal. To reject a VECP, the OE enters “Rejected” as the review status code, provides information necessary to instruct the Contractor on the needed modifications for compliance, uses the Email Form function to send the rejected VECP to the Contractor. A rejected VECP is considered closed and the Contractor uses the “Copy Document” function to initiate a new VECP.

The OE uses the “Inbox” function to notify the Administrative/Document Control Specialist (ADCS) of the receipt of a VECP. The ADCS logs the receipt of the VECP in Correspondence Received, prints and files hardcopy document and notes in the CMIS confirmation of receipt of any non-electronic documentation delivered as part of the VECP.

The OE confirms the priority code (“Normal” or “High”) and the review/approval duration, and uses the CMIS Ball in Court function to forward the action of VECP review to the Project CM. The Project CM reviews the VECP for acceptability, coordinates with the Contractor to modify the VECP to enhance it and confirms the Primary Reviewer with the OE.
If the Project CM rejects the VECP, the Project CM uses the Ball in Court to forward the action to the OE, and directs the OE to return the rejected VECP to the Contractor. The OE sets the Ball in Court to the Contractor, sets the Status to Rejected, and uses the Email Form function to transmit the rejected VECP to the Contractor, and includes the ADCS as a recipient of the email of the rejected and closed VECP. The ADCS logs the transmitted VECP in Correspondence Sent, prints and files hardcopy documents.

If the Project CM accepts the VECP and approves its review, the Project CM sets the Status to In Review and uses the Ball in Court function to forward the action to the OE. The OE uses the Ball in Court function to forward the action to the OE. The OE uses the Ball in Court function to forward the action to the Primary Reviewer. The Primary Reviewer is expected to obtain whatever additional review assistance is required from other project staff, using email external to CMIS to solicit specific information and to log and track secondary reviews.

The Primary Reviewer compiles secondary responses, forwards the final response to the OE via email external to CMIS, and uses the CMIS Ball in Court function to forward the action to the OE. The Primary Reviewer will recommend approval or rejection in the email and, if the recommendation is to reject the VECP, include comments explaining the reason for the rejection.

The OE checks the response for completeness and, if the response is deemed insufficient, uses the Ball in Court function to return the action to the Primary Reviewer and the Email Form function to define additional requirements. If the OE deems the response satisfactory, the OE forwards the action to the Project CM for approval or modification and transmittal to the Contractor. The Project CM reviews and, if necessary, modifies the response; sets the Status to Approved or Rejected, uses the Ball in Court function to forward the action to the Contractor, and uses the Email Form function to transmit the response to the Contractor. The Project CM includes the ADCS as a recipient of the mail to notify the ADCS of the completed action. The ADCS logs the VECP in Correspondence Sent, prints and files hardcopy documents, scans and attaches to VECP record any hardcopy documents, sets the Ball In Court to Closed, and confirms the Status as Approved or Rejected, according to the Project CM’s determination.

If the approved VECP was a Conceptual VECP, the Contractor initiates a Final VECP. The Contractor identifies the new VECP record Document Type as a Final VECP, addresses it to the Project CM, enters the required data for the Final VECP, identifies the Conceptual VECP as the Reference, attaches the approved Conceptual VECP, along with the required documentation, and forwards the Final VECP to the Project CM. The review and approval or rejection a Final VECP follow the same steps defined for a Conceptual VECP.

Upon approval of a Final VECP, the Project CM includes in the Response instructions to submit a COR to incorporate the VECP into the Contract.

**Business Process Steps**

1. Contractor enters Conceptual or Final VECP data into the CMIS, addresses it to the Project CM, attaches electronic files, uses the Ball in Court to forward the action to the OE and transmits any hardcopy backup data to the Project CM.
2. OE reviews for completeness and conformance to contract requirements, and uses the Inbox function to notify the ADCS of the receipt of the VECP.

3. If noncompliant, OE rejects the VECP and uses the Ball in Court to forward the action to the ADCS and the Email Form function to forward it to Contractor.

4. The Administrative/Document Control Specialist verifies the file code, logs the RFI in CMIS Correspondence Received and files the hardcopy RFD. If the VECP is rejected by the OE, the ADCS also logs the rejected VECP in Correspondence Sent.

5. If compliant, the OE adds the Project File Code, verifies the priority code, determines the Primary Reviewer and uses the Ball in Court function to forward the action to the Project CM.

6. The Project CM reviews the VECP and accepts it for review or rejects it. The Project CM may modify the VECP to enhance or improve it. If the Project CM rejects the VECP, the Project CM sets the Status to Rejected, uses the Ball in Court function to forward the action to the ADCS, uses the CMIS Email Form function to forward the VECP to the Contractor, including the OE and ADCS as recipients of the email, and closes and saves the VECP. If the Project CM accepts the VECP, the Project CM uses the Ball In Court function to forward the action to the OE, confirms the Primary Reviewer with the OE and instructs the OE to forward the action to the Project CM.

7. If the VECP is rejected, the ADCS confirms all data, clears the Ball in Court, attaches any necessary electronic files, attaches the rejected VECP from the Project CM’s email, prints and files the hardcopy, closes and saves the VECP and logs the rejected VECP in Correspondence Sent.

8. Primary Reviewer reviews the VECP and, if necessary, obtains comments from secondary reviewers. Primary Reviewer compiles responses from secondary reviewers, formulates and returns the final response to the OE via email and uses the CMIS Ball in Court function to forward the action to the OE.

9. The OE reviews the responses from the Primary Reviewer and, if necessary, returns the response to the reviewer. The OE will also determine the notification distribution list. Upon satisfactory completion of the response, the OE uses the CMIS Ball in Court function to forward the response to the Project CM for approval or modification and transmittal to the Contractor.

10. The Project CM verifies the response, determines if the VECP should be approved and transmits the response to the Contractor. The Project CM may modify the response before transmitting to the Contractor. The Project CM sets the Status to Approved or Rejected, uses the Ball in Court function to forward the action to the OE, and uses the Email Form function to transmit the VECP to the Contractor, including comments regarding the approval or rejection in the Remarks section of the Email function. The Project CM includes the OE and ADCS as recipients of the email transmitting the VECP to the Contractor. The Project CM uses all the CMIS Inbox function to notify the ADCS to log the VECP response in Correspondence Sent and to print and file a hard copy of all documents.

11. The ADCS confirms all data, clears the Ball in Court, attaches necessary electronic files, prints and files hardcopy documents, logs the transmitted VECP
in Correspondence Sent, and send notifications to parties named on the
distribution list which must always list the RPM, PE, RCM, and City RCM. The
ADCS closes and saves the VECP.

12. If the approved VECP is a Conceptual VECP, the Contractor initiates a Final
VECP as described in Step 1. If the approved VECP is a Final VECP, the Project
CM includes in the response the instruction to initiate a COR within 5 working
days.

**RFD Data Requirements**

**Contractor entry:**

**Description fields:**

- Type (VECP- Conceptual or VECP –Final)
- To (Project CM)
- From (Contractor)
- VECP number *(sequential number assigned by the CMIS based on document
type)*
- VECP date *(date assigned by the CMIS when the Contractor initiates the VECP)*
- VECP Subject

**Status fields:**

- Ball in Court (OE)
- Priority (Normal or High)

**Question fields:**

- Scope Impact (Not required)
- Reason for Request (Not required)
- Question: Description and background of the VECP in accordance with the
requirements pertaining to Conceptual or Final VECP, including:
  - Narrative description of the proposed VECP
  - Statement that the VECP is submitted as Conceptual or Final
- Question Signed by (Contractor's name)
- Date (Date transmitted to Project CM)
- Required Date (date when a response to a Conceptual VECP is required from
the City, or date when a finale response from the City regarding a Final VECP is
required to avoid delays)

**Answer fields:**

- Cost Impact - Yes
- Cost ($) - Amount of cost savings
- Schedule Impact - Yes/No *(See Schedule, below)*
Details fields:
- Specification Section
- Contract/Task
- Reference - *If Final VECP, select preceding Conceptual VECP*

Schedule - Provide schedule impact in Time Change (Days) field

Custom Fields:
- Project File Code
- Description of Scope Impact
  - General or detailed description of the difference and advantages and disadvantages, as appropriate for type of VECP
  - General description of changes to plans, drawings and specifications, with reference to the attached document that provides appropriate details
  - Reference to the attached document that provides appropriate estimate or itemization of anticipated changes from the original Work and associated cost/schedule savings
  - Information regarding previsions use, including
  - Description of project and use
  - If a City project, include Contract No., date and City action
  - Date of project and use
  - Contact information
- Waiver of
  - Restriction in City use or disclosure
  - Additional cost/time extension
  - Agreement not to hold City liable for acceptability or attributable delays
- Coordination of proposed VECP into the Work
- Hardcopy Documents (Yes/No)
- Hardcopy Documents (List hardcopy documents transmitted under hardcopy transmittal)

Attachments:
- Signed Statement that the VECP is submitted as Conceptual or Final VECP
- Plans, Drawings and Specifications - List of (Conceptual VECP) conceptual plans and description of proposed changes to specifications or (Final VECP) detailed itemization of Contract requirements to be changed and drawings and specifications affected.
- Cost and Schedule - (Conceptual VECP) estimated of anticipated savings and schedule impact; or (Final VECP) cost comparison following COR Cost Proposal process summarizing items changed from original Contract work, not to include reduction in inspection, testing or City overhead.
- Statement detailing impact on the Baseline Project CPM Schedule
- Statement of Required Implementation - (Conceptual VECP) when response is required from City; time required to prepare a Final VECP and required implementation date of Change Order for maximum benefit; or (Final VECP) When response is required from City to avoid delays and required implementation date of Change Order for maximum benefit.
- Previous use (Final VECP, only) - Description, date, contact information; if previously used on a City project, contract number, date, and city action
- Life cycle costs (Final VECP, only) - if required by the City
- Contractor certification (Final VECP) - No restrictions on use or disclosure; coordination into Work; waiver of additional costs/time extension; agreement not to hold City liable regarding acceptability or attributable delays

Office Engineer entry:
Status fields
- Ball in Court (to Project CM if compliant; to Contractor if noncompliant)
- Priority code ("normal" or "high")
If Rejected
- Status - Rejected
- Closed by
  - Contact (Office Engineer)
  - Reviewed Date
- Close and Save - Click
If Accepted
- Status - In Review
Question Fields
- Required Date (Verify date response required against attached statement)
Details fields:
- Verify Spec Section
- Verify Contract
Schedule: Validate schedule impact in Time Change (days)
Custom fields:
- Verify File Code
Attachments: Verify attachments are compliant to Specification requirements
Actions
- Save
Project CM entry:
Status fields
- Priority (Confirm priority, based on required response date)
If Rejected
- Status - Rejected
- Closed by
  - Contact (Project CM)
  - Reviewed Date
If Accepted
  - Status - In Review
- Ball in Court - Office Engineer if accepted; ADCS if rejected
Question fields
- Question - modify to improve or enhance after obtaining concurrence with Contractor

Office Engineer entry:
Status fields
- Ball in Court (to Primary Reviewer if Status equals “In Review”)

Primary Reviewer entry:
Status field
- Ball in Court (After RFS review and Answer is compiled) - Office Engineer
Actions:
- All correspondence regarding response to the RFS is to be conducted externally to CMIS
- Compile final response
- Email final response to OE

Office Engineer entry:
Status Fields
- Ball in Court (after entering answer from Primary reviewer) – Project CM

Answer fields:
- Answer (from answer provided by Primary Reviewer)

Project CM entry:
Status fields
- Ball in Court (to Office Engineer if response is not satisfactory; to ADCS if response is satisfactory)
• Status Rejected or Accepted

• Closed by
  o Contact (Project CM)
  o Reviewed Date

Answer fields:

• Answer (Modify as necessary)
• Answer signed by (Project CM)
• Date
• Responded Date
• Answer Distribution (Add recipients as necessary)

Issues entry: Link to an existing Issue or go to Issues module to create a new Issue

Attachments:

• Attach electronic files to accompany Answer, as necessary

Actions:

• Use Email Form function to forward the response to the Contractor, include OE and ADCS as email recipients

ADCS Entry

Status fields

• Ball in Court - Closed
• Click Close and Save

Actions

• Confirm all data
• Log in Correspondence Sent

• Attachments - Ensure documentation is complete in hardcopy and electronic attachments, including VECP transmitted by Project CM to the Contractor.
## Revision Control Log

<table>
<thead>
<tr>
<th>Revision No.</th>
<th>Revision Date</th>
<th>What changed?</th>
</tr>
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<tbody>
<tr>
<td>Rev 0a</td>
<td>September 21, 2011</td>
<td>• Formatting refreshed: document footers and page numbers refreshed and updated SFPUC Logo on various attachments</td>
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<tr>
<td></td>
<td></td>
<td>• References and/or Links noted to WSIP Website have been updated</td>
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<tr>
<td></td>
<td></td>
<td>• Revision Control Log Added</td>
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<tr>
<td>Rev 0</td>
<td>February 12, 2009</td>
<td>Signed</td>
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