CMS REQUIREMENTS USE CASE REPORT
TABLE OF CONTENTS

1 Purpose ........................................................................................................................................... 5
2 Background .................................................................................................................................... 5
3 Approach ....................................................................................................................................... 7
4 CMS requirements - Overview ..................................................................................................... 11
  4.1 Use Cases ................................................................................................................................ 11
  4.2 Swim Lane Diagram of Process Flows ...................................................................................... 12
  4.3 Business Requirements ............................................................................................................ 13

APPENDIX A: Process Descriptions and Process flows .................................................................. 17

A.1. Start Up Activities .................................................................................................................. 19
  Use Case: Create and Modify Users (UC 1.1) ............................................................................... 21
  Use Case: Manage Resources (UC 1.2) ....................................................................................... 23
  Use Case: Establish Project (UC 1.3) ........................................................................................... 25
  Use Case: Assign Resources (UC 1.4) ......................................................................................... 28
  Use Case: Maintain Project Contacts List (UC 1.5) .................................................................... 30
  Use Case: Conduct and Capture Meeting Data (UC 1.6) .............................................................. 31
  Use Case: Review and Establish RE Pending File in Project File (UC 1.7) ................................. 33
  Use Case: Track Submittals (UC 1.8) .......................................................................................... 35
  Use Case: Deactivate a Project (UC 1.9) ..................................................................................... 37

A.2. Contract Management ............................................................................................................ 41
  Use Case: Build Staffing Plan and Compare to PM hours (UC 2.1) .............................................. 43
  Use Case: Update Staffing Plan (UC 2.2) .................................................................................... 45
  Use Case: Load Project Budget and Update Project Capital Budget (UC 2.3).............................. 47
  Use Case: Monitor and Track Actual Expenditures of Personnel Years (PY), Expenses, Time (UC 2.4) ................................................................................................................................................................................. 48
  Use Case: Load / Update / Record As-Built timelines (UC 2.5) ................................................... 50
  Use Case: Construction Zone Enhanced Enforcement Program (COZEEP) (2.6) ..................... 52
  Use Case: Manage Contract Budget and Contingency Balance (UC 2.7) ................................. 54
  Use Case: Manage Survey Requests (2.8) .................................................................................. 56
  Use Case: Managing a Major Incident (2.9) ............................................................................... 58
  Use Case: Canceling a Contract after work begins (2.10) .......................................................... 60
  Use Case: Terminating a Contractor after work has begun (2.11) ............................................. 61
  Use Case: Request for Additional Funds (UC 2.12) .................................................................... 62

A.3. Daily Diary / Inspection Process ............................................................................................ 73
  Use Case: Assign Inspection Work (UC 3.0) ............................................................................... 75
  Use Case: Inspect Work / Product (UC 3.1) ............................................................................... 77
  Use Case: Enter / Update Assistant Resident Engineer Diary Report (UC 3.2) ......................... 79
  Use Case: Review Assistant Resident Engineer Diary Report (UC 3.3) ...................................... 81
  Use Case: Enter / Update Resident Engineer Diary Report (UC 3.4) ......................................... 84
  Use Case: File Assistant Resident Engineer / Resident Engineer Diary Reports (UC 3.5) ........ 86

A.4. Close Out .................................................................................................................................. 89
  Use Case: Project Acceptance (UC 4.1) ..................................................................................... 91
  Use Case: Close-Out Utilities and Permits (UC 4.2) ................................................................. 93
  Use Case: Minor B / Emergency Contract Close Out (UC 4.3) .................................................. 95
  Use Case: Post-Submittals (UC 4.4) .......................................................................................... 97
Use Case: Complete Final Records (UC 4.5) .......................................................... 99

A.5. Contract Change Order ......................................................................................... 104
Use Case: CE initiates Contract Change Order (UC 5.0) ........................................... 106
Use Case: Route CCO for Concurrence (UC 5.1) ....................................................... 108
Use Case: Obtain Prior Authorization (UC 5.2) .......................................................... 110
Use Case: CCO Approval and Acceptance Process (UC 5.3) ........................................ 112

A.6. Labor Compliance ............................................................................................... 117
Use Case: Receive and Validate Payrolls from Contractor (UC 6.1) ........................ 119
Use Case: Import Labor Rates (UC 6.2) .................................................................. 121
Use Case: Analyze Compliance Data (UC 6.3) .......................................................... 123
Use Case: Track Compliance and Respond to Compliance Issues (UC 6.4) .......... 126
Use Case: Pursue Labor Case (UC 6.5) ................................................................. 129

Use Case: Receive, Review and Forward List of DBE / DVBEs (UC 7.1) .................. 134
Use Case: Track DBE / DVBE use on Contract and Respond to Compliance Issues (UC 7.2) .......................................................... 136
Use Case: Contractor Responds to DBE / DVBE Issue (UC 7.3) .......................... 139
Use Case: Contractor Completes Work and Submits Final Report of DBE / DVBE and 1st tier Subcontractor utilization (UC 7.4) ............................................................. 142

A.8. Test Products and Materials ............................................................................... 146
Use Case: Maintain List of Materials / items to be Used (8.1) ............................... 148
Use Case: Enter / Update / Approve Test Plan (8.2) ................................................. 150
Use Case: Verify Resource Certification (8.3) .......................................................... 152
Use Case: Assign Tests / Inspections to Resources (8.4) ......................................... 154
Use Case: Perform Tests and Inspections / Record Results / Notification (8.5) ........ 156
Use Case: Close Out Material / item (8.6) .............................................................. 158

A.9. Quality Control / Quality Assurance (QC / QA) ................................................ 160

A.10. Contract item Quantity Calculation ................................................................... 161
Use Case: item Quantity Calculation (UC 10.1) ...................................................... 163
Use Case: Materials on Hand Calculation (UC 10.2) ............................................. 165

A.11. Payment Estimate ............................................................................................. 169
Use Case: Payment Estimate Request - Progress Pay, Minor B, and Emergency Contract Payments (UC 11.1) ............................................................ 171
Use Case: Payment Estimate Request - After Contract Acceptance (UC 11.2) ........ 174
Use Case: Designated Personnel Reviews / Approves / Routes Payment Estimate (UC 11.3) .......................................................... 179
Use Case: Headquarters Reviews / Approves / Routes Payment Estimate (UC 11.4) .......................................................... 181
Use Case: Accounting Processes Payments (UC 11.5) ........................................... 183
Use Case: Generate and Distribute Payments (UC 11.6) ......................................... 186

A.12. item Adjustment .............................................................................................. 190
Use Case: Process item Adjustments (UC 12.1) ..................................................... 192

A.13. Extra Work Bill (EWB) .................................................................................... 195
Use Case: Create / Submit EWB (UC 13.1) ............................................................. 197
Use Case: Review / Approve / Route EWB (UC 13.2) ............................................. 203

A.14. Dispute Resolution ........................................................................................... 210
Use Case: Enter Initial Dispute (UC 14.1) ............................................................... 212
Use Case: Create Dispute / Claim Tracking Template (UC 14.2) .......................... 214
Use Case: Associate Documentation in CMS with Dispute (UC 14.3) .................. 216
Use Case: Associate Comments with Dispute or Specific Deliverable (UC 14.4) .... 218
Use Case: Enter Response to Written Notice / Protest / Initial NOPC (UC 14.5) .... 220
Use Case: Enter Supplemental NOPC (UC 14.6) ................................................. 222
Use Case: Enter Response to Supplemental NOPC (UC 14.7) ................................................................. 224
Use Case: Enter Contractor Response to Supplemental NOPC Response (UC 14.8) .................................. 226
Use Case: Enter DRB Meeting Request (UC 14.9) ..................................................................................... 228
Use Case: Enter DRB Meeting Schedule (UC 14.10) .................................................................................. 229
Use Case: Enter DRB Position Papers (UC 14.11) ...................................................................................... 230
Use Case: Enter DRB Determination and Ruling (UC 14.12) ................................................................. 232
Use Case: Enter Responses to DRB Determination and Ruling (UC 14.13) ........................................... 234
Use Case: Enter DRB Determination and Ruling Clarification Request (UC 14.14) ................................... 236
Use Case: Enter DRB Determination and Ruling Clarification Response (UC 14.15) .............................. 238
Use Case: Enter Full and Final NOPC (UC 14.16) ..................................................................................... 240
Use Case: Enter Response to Full and Final NOPC (UC 14.17) ............................................................... 242
Use Case: Enter Contractor Response to Full and Final NOPC Response (UC 14.18) ............................... 244

A.15. Claims ................................................................................................................................................. 248
Use Case: Enter Contractor Exceptions to PFE (UC 15.1) .............................................................................. 250
Use Case: Create Claim Tracking Template (UC 15.2) .............................................................................. 252
Use Case: Enter Overhead Audit Analysis (UC 15.3) .................................................................................. 254
Use Case: Enter Initial Claim Findings Report (UC 15.4) ........................................................................... 256
Use Case: Enter Initial Claim Findings Report Comments (UC 15.5) ....................................................... 258
Use Case: Enter Board of Review Meeting Request (UC 15.6) ............................................................... 260
Use Case: Update Initial Claim Findings Report (UC 15.7) ........................................................................ 262
Use Case: Enter Board of Review Recommendation (UC 15.8) .............................................................. 264
Use Case: Enter District Director Determination of Claims Report (UC 15.9) ........................................... 266
Use Case: Enter Contractor Response to Determination of Claims Report (UC 15.10) ......................... 268
Use Case: Enter Contractor Request for Arbitration Hearing (UC 15.11) ................................................. 270
Use Case: Enter Arbitration Report (UC 15.12) ......................................................................................... 272

PROVIDED IN A SEPARATE FILE

APPENDIX B: REQUIREMENTS
0. General
1. Start Up Activities
2. Contract Management
3. Daily Diary / Inspection Process
4. Close-Out Activities
5. Contract Change Order
6. Labor Compliance
8. Test Products and Materials
9. Quality Control / Quality Assurance (QC / QA)
10. Contract Item Quantity Calculation
11. Payment Estimate
12. Item Adjustment
13. Extra Work Bill (EWB)
14. Dispute Resolution
15. Claims
16. Interface Requirements
17. Reporting Requirements
18. Technical Requirements

APPENDIX C - FORMS LIST
APPENDIX D - SUBMITTALS LIST
APPENDIX E – GLOSSARY
1 PURPOSE

This Construction Management System (CMS) Requirements Use Case Report supports the California Department of Transportation’s (Department) Division of Construction (DOC), Office of Construction Systems effort to procure a construction management system by providing a comprehensive collection of process flows, process descriptions, and business requirements to be used in the procurement and development of CMS.

2 BACKGROUND

The Department is responsible for overseeing the construction of all capital outlay and major maintenance projects undertaken to maintain and improve California’s transportation system. Within this structure, the headquarters construction program and district construction divisions work with external Contractors to build the highways, bridges, and freeways that the people of California use every day.

Since 1968, the Department has supported the contract administration function with one primary system, the Contract Administration System (CAS). This system has served the Department well for a period far longer than could be envisioned when it was first developed. However, a lack of flexibility and capability in old mainframe systems, as well as the increasing pace of legislative change at both the state and federal levels creates a situation where CAS cannot be considered as a viable tool to support the program. The result of this situation is that the Department does not have a single, reliable system with which to manage all construction project activities. Information is in multiple systems, including small desktop databases. In some cases, the most current data is contained in paper files within the districts and are not easily accessible when required by headquarters or district staff.

During 2000 and 2001, Caltrans completed multiple Feasibility Study Reports (FSRs) to address their recognized problems and opportunities. Department of Finance noted the similarities between the financial functions in the multiple FSRs and requested that Caltrans conduct an Integration Study to examine the common business requirements of the projects. The Integration Study, completed in 2004, provided the Department with a strategic plan – a roadmap for implementing CMS and other efforts through a series of projects, paralleled and sequenced according to project priorities and dependencies.

The Integration Study recommended that the CMS project move forward in parallel with other efforts including the first phase of the Integrated Financial Management System (IFMS), Project Resource and Scheduling Management (PRSM), and Electronic Bid system (eBID). The integration study advocated that all Caltrans systems be integrated. The diagram below provides a view of the system and phase relationships discussed in this document:
FIGURE A: CMS – Conceptual Concept

In January 2006, Division of Construction completed and obtained approval for the FSR outlining the strategic plan for replacing the legacy Construction Administration System (CAS) with a new CMS. This project addresses the following major business issues faced by the Division of Construction:

- Business functions are supported by information systems that require increasing levels of maintenance, which are not able to support the informational needs of the construction program.
- Business functions are supported by ever-increasing manual processes that are paper based, resulting in multiple filing systems, which contain only a portion of the records necessary to administer a contract. The result of these are labor-intensive manual processes which increase the time spent on administrative tasks, and decrease the time available to conduct activities that improve the quality of work. In addition, the inaccessibility of paper-based documentation significantly hinders research and analysis of construction project and contract information.
- It is not cost effective or timely to modify CAS for certain legislative or business process changes.
• CAS is unable to track contract expenditures on a project to date basis, resulting in overpayments and contract overruns.
• CAS is unable to track subcontractors, allowing missed payments to subcontractors, a violation for federally funded projects, resulting in lawsuits.
• CAS is unable to view or track all project expenditures.
• Manual calculations made by the Resident Engineer (RE), which are subject to variation in method and accuracy, lead to contract disputes.
• The RE spends time doing manual accounting work, impacting their time for contract management of construction projects.
• To research records and files, paper records must be copied and transferred between the district and headquarters.
• CAS payments are not tied to inspection; therefore, some payments are made prior to actual inspections (particularly on materials).
• A reliable, uniform system of construction contract record keeping is not possible in the current method of operation. CAS is unable to relate the work completed to the funding sources for that work.

In August 2006, Division of Construction began efforts to gather and document process flows, process descriptions, and business requirements for the new CMS, the important first step in the procurement of a system solution for the Division of Construction.

3 APPROACH

Scope of the Business Requirements Gathering

The scope of the CMS business requirements phase of the project encompasses functions and processes under the purview of the Department’s Division of Construction, as follows:

♦ Documentation of process descriptions, system flows and business requirements for the functions listed below:
  1. Start-Up Activities
  2. Contract Management
  3. Daily Diary / Inspection Process
  4. Close-out Activities
  5. Contract Change Order
  6. Labor Compliance
  7. Disadvantaged Business Enterprise (DBE)
  8. Test Products and Materials
  9. Quality Control / Quality Assurance (QC / QA)
  10. Contract Item Quantity Calculation
  11. Payment Estimate
  12. Item Adjustment
  13. Extra Work Bills (EWB)
  14. Dispute Resolution
  15. Claims
♦ Documentation of general requirements that span all functional areas, required interfaces with CMS and other proposed systems, and reporting requirements.

♦ Documentation of high level technical requirements describing the technical architecture and platform requirement for CMS.

♦ Documentation of the various forms currently in use in the Division of Construction. The team prepared a spreadsheet listing each form, documenting whether the data in the form should be captured in the CMS or if just the form receipt, approval and dates should be tracked in the CMS.

♦ Documentation of some of the submittals required during the life of a contract by the Division of Construction.

♦ Glossary – A glossary with definitions of terms included in the CMS Requirements Report.

**Out of Scope of Requirements Gathering**

The project team determined detailed system requirements to be out of scope for this phase of the project. This effort focused on the ‘what’ not the ‘how’. The project team limited the content of the requirements in the CMS Requirements Report to business requirements.

In addition, the focus of materials testing was limited to the purview of the Resident Engineers and does not include the physical testing functions performed by Materials Engineering Testing Services (METS). The requirements focus on the request for testing and results of testing.

**Approach for the Requirements Gathering**

Upon familiarization with the FSR, dated May, 2005, the Project Team reviewed and analyzed the following documentation:

♦ Business Process Review, prepared by Deloitte Consulting for the Construction Systems Integration Project, 2000, including:
  o As Is Processes
  o Shadow Systems
  o Vision Diagrams


♦ Utah Department of Transportation, Project Development Business System

♦ Business requirements developed for:
  o Contract Change Order
  o Daily Diary
  o Extra Work Bill
  o Project Initiation and Update
  o Progress Pay

♦ EPEG Construction Diary System documentation including:
  o Administrator Guide
The methodology used to gather the requirements focused on the employment of use cases. Each functional area was broken down into a series of use cases providing a description of what each process might look like in the new CMS. The use cases were then translated into swim lane diagrams of the proposed processes and used to develop business requirements.

Based on the scope of the requirements gathering effort, the Project Team used the previously gathered requirements and processes descriptions as a starting point for the development of use cases for each functional area. In addition, the team interviewed resident headquarters subject matter experts to develop draft use cases and process flows.

A CMS Project User Committee (Committee) was instituted, composed of representatives from each district / region across the state. The Committee met on a bi-weekly basis from September through December with follow-up sessions in January. In the instances where functional areas lacked adequate existing documentation and resident subject matter experts, the project team interviewed the Committee to develop the draft use cases and process flows.

The Committee reviewed and discussed all use cases prepared by the project team. Once the use cases were defined and reviewed, the project team developed swim lane diagrams of the process from the new system perspective based on the use cases and the discussions with the Committee.

Draft business requirements were then derived from both the use cases and the process flows. These draft business requirements and process flows developed by the project team were reviewed, discussed and prioritized by the Committee.

Once all functional areas were reviewed by the Committee a master use case flow diagram was prepared depicting the flow of use cases across all functional areas providing a picture of CMS from a high level.

**CMS Requirements Report Approval Process**

After all Committee comments were received and incorporated, the project team integrated the use cases, process flows and requirements into this CMS Requirement Report.
The project team distributed the draft CMS Requirement Report to the Committee for their final review. The Committee will review the document and provided all comments and concerns to the Caltrans Project Manager and project team during a final review session. These final comments and updates will be incorporated into the Final CMS Requirements document.

The Final CMS Requirements Report document will be provided to the CMS Project team for final acceptance.
4 CMS REQUIREMENTS - OVERVIEW

The CMS Requirements Report contains process descriptions in the form of use cases, use case process flows depicting the flow from one use case to another and the larger CMS picture, swim lane diagrams depicting each functional area and business requirements for each functional area broken down by use case. Each deliverable is described in the following sections.

4.1 USE CASES

A use case provides one or more scenarios that convey how a system should interact with users, called actors, to achieve a specific business goal or function. In this document the use cases are broken down by functional area then by specific process. Each use case includes the following sections:

- **Brief Description**
  - This section describes what activity is covered by the use case.
- **Actors**
  - Define a particular role utilized within the use case.
  - Provide role definitions and descriptions.
- **Systems / Interfaces**
  - Any system or system-to-system interface involved in the use case.
- **Preconditions**
  - Describes a list of conditions that must be true before the start of the use case.
  - Often preconditions are the execution of preceding use cases.
- **Flow of Events**
  - The flow of events is a series of statements listing the steps of the use case from the actor’s point of view.
- **Postconditions**
  - Describes what conditions have occurred as a result of the use case.
  - Post conditions must be true no matter what alternative occurs in the use case.
- **Alternate Paths**
  - An alternate path is one that allows a different sequence of events than what was used for the basic flow of events.
  - Often these are alternate choices made during a use case.
- **Business Rules**
  - A list of rules used to govern the business processes within the use case.
- **Outstanding Issues**
  - A list of outstanding issues that may impact the use case operation as described.
- **Questions**
  - Questions that remain to be answered.
- **Forms**
  - Forms or artifacts included in the use case.
In addition to each use case each functional area includes a use case diagram. The diagram depicts the process flow between use cases providing a picture of where each use case fits into the larger CMS picture.

The project team employed the following forms to depict use cases and their inputs and outputs:

- **Use case**
- **Input or output of use case**
- **Reference to other functional area**

The project team did not employ actors, swim lanes or decision boxes in the use case flows. To depict actors / CMS interactions the project team developed separate swim lane diagrams.

### 4.2 Swim Lane Diagram of Process Flows

The project team depicted the interaction of CMS and the system user / actors for each functional area in a swim lane diagram. These swim lane diagrams are intended to provide a high level view of the process flow for each function.

The project team employed the following forms to depict use cases and their inputs and outputs:

- **Activity**
- **Input or output**
- **Report**
The project team employed actors and swim lanes in the use case flows. Unlike the use case flows, the swim lane process flows depict actors / CMS interactions.

### 4.3 Business Requirements

The business requirements for the functional areas within the scope of CMS are included in Appendix B. The requirements in Appendix B contain a designation indicating the criticality of the requirement to Caltrans. The categories are:

- **A** - Legally Mandated: the solution must satisfy this requirement due to specific legal mandate.
- **B** - Required: the solution must satisfy this requirement due to operational need.
- **C** - Desirable: the inclusion of this requirement in the solution would improve Caltrans ability to perform, but the requirement is not mandatory.

The phrases ‘The system must provide the ability to’ and ‘The system must allow’ designate a requirement that is not automatic. It must be controlled or triggered by a user.

The requirements are broken down by functional area and use case. The functional areas in scope for CMS are:

1. Start Up Activities
2. Contract Management
3. Daily Diary/Inspection Process
4. Close-Out Activities
5. Contract Change Order
6. Labor Compliance
8. Test Products And Materials
9. Quality Control / Quality Assurance (QC / QA)
10. Contract Item Quantity Calculation
11. Payment Estimate
12. Item Adjustment
13. Extra Work Bill (EWB)
14. Dispute Resolution
15. Claims

In addition, the project team worked with the Committee to develop five other categories of requirements:

- **General requirements** represent the overarching requirements that cross all functional areas including functionality such as workflow automation. Workflow automation involves the pro-active coordination of business processes. A comprehensive workflow solution provides the means of easily and graphically designing, testing, simulating, implementing, monitoring and measuring any business process within the system.

The IFMS project is currently working to provide Caltrans with a central vendor file that all other systems access. Since IFMS is in the early stages of conception, the Contractor (vendor) file requirements are included in the CMS requirements as well to ensure the functionality is available to Construction staff.

- **Interface requirements** include requirements governing interactions with other systems for all of the CMS business functions. The interfaces include both external interfaces, which include interfaces to systems external to Caltrans such as other agencies, and internal interfaces, which include interfaces to systems that are not included in the CMS scope, such as IFMS, eBID and PRSM (see Figure A for CMS Conceptual Concept). The IFMS, eBID and PRSM system are currently in the early stages of procurement. Due to this condition, the project team made assumptions regarding the types of information that will be interfaces between the systems. As this new structure of Caltrans data becomes more solid the required data interactions may change. The following diagram provides an overview of the interfaces documented in the Interface requirements.
• **Reporting requirements** outline the reporting needs of the Division of Construction in three areas: legally mandated reports, heavily used reports and new reports based on the new functionality provided by CMS.

• **Technical Requirements** include high level technical requirements describing the technical architecture and platform requirement for CMS.

• **Forms List** provides a list of the various forms currently in use in the Division of Construction. The team prepared a spreadsheet listing each form, documenting whether the data in the form should be captured in the CMS or if just the form receipt, approval and dates should be tracked in the CMS.

• **Submittals List** provides a list of some of the various submittals required during the course of a contract. The list is not a complete list of submittals as some submittals are required as a part of the contracts Special Provisions and may or may not be required depending on the type of contract.
APPENDIX A: PROCESS DESCRIPTIONS AND PROCESS FLOWS

The following sections include a use case flow depicting the process flow of the use cases, process descriptions in the form of narrative use cases, and a swim lane diagram depicting the interaction of the users with CMS. The following functional areas are included:

1. Start-Up Activities
2. Contract Management
3. Daily Diary / Inspection Process
4. Close-out Activities
5. Contract Change Order
6. Labor Compliance
7. Disadvantaged Business Enterprise / Disabled Veteran Enterprise (DBE / DVBE)
8. Test Products and Materials
9. Quality Control / Quality Assurance (QC / QA)
10. Contract Item Quantity Calculation
11. Payment Estimate
12. Item Adjustment
13. Extra Work Bills (EWB)
14. Dispute Resolution
15. Claims

These use cases are depicted in a master use case flow on the following page:
A.1. START UP ACTIVITIES

This functional area includes the following use cases:

- Create and Modify Users (UC 1.1)
- Manage Resources (UC 1.2) - this function may largely be performed in PRSM or CMS. At this time the PRSM system is in the early stages of procurement and it is not clear where this functionality will be provided.
- Establish Project (UC 1.3)
- Assign Resources (UC 1.4)
- Maintain Project Contacts List (UC 01.5)
- Conduct and Capture Meeting Data (UC 1.6)
- Review and Establish RE Pending File in Project File (UC 1.7)
- Load and Categorize Submittals (UC 1.8)
- Deactivate a Project (UC 1.9)

The use case flow on the following page depicts the process flow of the use cases within the functional area:
Process: Start Up Activities – Manage Pre Project Records

- New CMS User identified
- Create and Modify Users [UC 1.1]
- CMS Users with appropriate authority
- Tentatively Assigned Resources
- Manage Resources [UC 1.2]
- Updated District Resource Pool
- An Awarded Contract
- Establish Project [UC 1.3]
- A Project is active in CMS
  - User Notification
  - Standard Specifications and Special Provisions
  - Load and Categorize Submittals [UC 1.6]
  - Mail Main Project Contacts List [UC 1.5]
  - Conduct/Capture Data for Meeting Data [UC 1.6]
- Active project determined necessary before start of work
- Deactivate a Project [UC 1.9]
- Inactive Project
  - Resources are released
- RE Pending File
- Review and Establish RE Pending File [UC 1.7]
- Project File Established
- Pre Submittals and Pre Submittal Status
- Project Contacts List
- Meeting Data
- Required Pre-Job and other required meetings
USE CASE: CREATE AND MODIFY USERS (UC 1.1)

Brief Description
This process encompasses the function of adding, modifying and deactivating users in the CMS.

Actors
1. District Administration – The person designated at the district office as system administrator for the CMS.
2. All Construction staff

Systems / Interfaces
1. TOPSS
2. eBID
3. IFMS

Preconditions
1. New CMS user is identified.

Flow of Events
1. Notified of Caltrans employee that needs access to the CMS.
2. Supervisor sends a CMS User Request Form to the Employee designating the role (RE Authority, Inspectors, Lab points of contact, etc.).
3. Employee completes CMS User Request Form and returns to HQ Administrator or District Admin.
4. HQ Administrator or District Administrator adds user’s identifier to the CMS.
5. CMS retrieves TOPSS data for the employee.
6. HQ Administrator District Administrator adds user authority and other pertinent data to the CMS.
7. CMS stores user authority.
8. CMS notifies the Caltrans employee of login and password.
9. CMS enforces authorization rules.

Postconditions
1. All persons who will require access to the CMS to comply with project requirements and specifications have been granted user IDs and passwords.
2. All assigned user IDs and passwords have been assigned the appropriate access authority.

Alternate Paths
1. The RE sends a CMS User Request Form to the Contractor or external user.
   a. The RE designates other users and their roles on a CMS User Request (such as RE / Field Office Engineer Authority, Inspectors, Lab points of contact).
   b. Contractor or external user submits the CMS User Request Form to the HQ Administrator District Admin.
   c. The HQ Administrator or District Administrator creates the Contractor or other external user in the CMS and assigns the project along with the appropriate authority for each Contractor or other external user.
   d. CMS verifies the Contractor is valid in eBID.
e. CMS verifies the Contractor is valid in IFMS.

f. CMS notifies the Contractor or other external user of login and password.

   CMS enforces authorization rules.

2. (Alt pat 1) The Contractor user already exists.
   a. The HQ Administrator or District Administrator adds the appropriate authority and assignments to the existing database user without creating a new one.
   b. CMS enforces new user authority.

3. (Step 1) District Administrator or HQ Administrator is notified a user should no longer be active.
   a. District Administrator or HQ Administrator deactivates user in the CMS.
   b. CMS terminates access for the user.

4. (Step 1) District Administrator or HQ Administrator is notified a user role has changed.
   a. District Administrator or HQ Administrator modifies user authority in the CMS.
   b. CMS enforces new user authority.

**Business Rules**

1. Users must be notified when they’ve been assigned responsibility within the CMS.

2. Contractor access is project specific.

3. Contractors must be assigned to a valid project.

4. Contractors must be associated with an awarded contract.

5. Contractors must be associated with a valid vendor that matches the vendor in the awarded contract.

6. System notifies RE of any Contractors with user access at the end of a contract.

7. Contractor may need multiple levels of access to the CMS based on their role in the project.

8. Security must be configurable from read only to full access by functionality (for example maintenance, reporting).

9. Users of CMS need to have access to query username / password, and have ability to reset password as needed.

10. The system must provide a report and / or display of user access by contract.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. N/A
USE CASE: MANAGE RESOURCES (UC 1.2)
This use case will be moved to PRSM. The post condition of the use case will interface with CMS at Establish Project (UC 1.3).

Brief Description
This process encompasses the function of adding, modifying and removing resources from the resource pool of a District.

Actors
1. District Administrator – The person designated at the district office as system administrator for the CMS.
2. Construction Manager (CM) or Delegate

Systems / Interfaces
1. TOPSS (Staff Central)

Preconditions
1. Need to create or modify a resource in PRSM.

Flow of Events
1. CM or delegate chooses type of personnel resource to add in PRSM.
2. For filled position CM or delegate will enter staff information.
3. For unfilled position, CM moves directly to step 5.
4. PRSM retrieves personnel data from TOPSS / LMS.
5. CM or delegate enters and missing resource data:
   a. classification
   b. skills and abilities
   c. certifications
   d. training
   e. schedule
   f. home region
   g. manager
   h. district
   i. county
   j. route
   k. position number (if Caltrans),
   l. unit assigned to
6. CMS stores resources with data.

Postconditions
1. A resource is available in PRSM for assignment to projects.

Alternate Paths
1. (Step 1) CM or delegate selects a resource to modify.
   a. CM or delegate selects a resource.
   b. CM or delegate modifies resource.
c. PRSM displays projects to which resource is currently assigned that will be affected by modification.
d. CM or delegate confirms or rejects modification.
e. PRSM stores selection of CM or delegate.

2. (Step 1) CM or delegate chooses to loan a resource
   a. CM or delegate creates a loan of the resource.
      i. Position number
      ii. Unit
      iii. Source number
      iv. Duration and dates
   b. CMS displays projects to which resource is currently assigned that will be affected by modification.
c. CM or delegate confirms or rejects modification.
d. PRSM stores selection of CM or delegate.
e. PRSM notifies CM or delegate at the end of the loan period.
f. PRSM cancels loan at end of loan period.

3. (Step 1) CM or delegate reduces the Person Years (PY) available.
   a. CM or delegate selects a resource.
b. CM or delegate terminates the PY by removing the position number.
c. PRSM displays projects to which resource is currently assigned that will be affected by modification.
d. CM confirms or rejects modification.
e. PRSM stores selection of CM or delegate.

**Business Rules**

1. A resource can be filled by an employee or exist as an unfilled PY.
2. Progress must be tracked by timeline and resources planned vs. resources available for reporting purposes.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. Letter to Unit of Loan Agreement
2. Assignment letter
USE CASE: ESTABLISH PROJECT (UC 1.3)

Brief Description
This process begins when a contract is awarded in eBID and downloaded to the CMS. NOTE: Managing resources will be done in PRSM, so this use case starts at Phase 4.

Actors
1. PM or delegate
2. Construction Manager
3. Construction Engineer
4. Structures

Systems / Interfaces
1. eBID – Contract Award
2. XPM – Project resource estimate and budget (PRSM)
3. IFMS – EA information

Preconditions
1. Users have access to the system (UC 1.1).

Flow of Events
1. Project reaches Phase 4 in eBID (the project could be established earlier than Phase 4, but will most likely be initiated at Phase 4.)
2. CMS retrieves data from eBID on the contract award.
3. CMS retrieves data from IFMS regarding matching project EA and financials.
4. CMS retrieves data from XPM (PRSM) on the contract resources, timeline, budget, etc.
5. A new project is created in the CMS.
6. CMS notifies the appropriate Actor of new project (based on the type of project).
7. Actor enters any missing data and sets up contract specifics for tracking throughout the life of the project.
8. CMS stores project data entered.
9. An updated project is created in the CMS using data accepted and entered.

Postconditions
1. A new project is available in the CMS database with a minimum of the following:
   a. Dates
   b. Milestones, start, duration
   c. Engineers estimate in dollars
   d. Budget and contract items
   e. Preliminary funding breakdown
   f. Structures and District estimates
   g. Location (county, route, post mile, GPS)
   h. Type of project
   i. Description
   j. Hours by WBS
   k. Translated hours by WBS into PY
   l. Contractor prices
m. Contractor days bid  
n. Contractor information including bonding insurance

Alternate Paths

1. Extra Work Force Account Project and Minor B contracts may not have matching data in any other system.  
   a. Actor enters new project identifier and overrides match function.  
   b. CMS stores new project identifier.  
   c. Actor enters all project data.  
   d. A new project is created in the CMS.

2. Actor modifies existing project (this includes reactivating an inactive project)  
   a. Actor selects project from list of projects in the CMS.  
   b. CMS retrieves project data.  
   c. Actor selects from which systems to retrieve updates (IFMS, XPM or eBID).  
   d. CMS displays data conflicts and new data for Actor.  
   e. Actor accepts or rejects data changes.  
   f. Actor modifies project data.  
   g. CMS stores project data entered.  
   h. Project data is modified in the CMS.

3. Project is not automatically initiated at Phase 4. This could be a project initiated earlier than Phase 4 or initiated for oversight purposes.  
   a. Project is presented to one of the Actors by an external Actor.  
   b. Actor selects project from list of projects in Phase 4 or greater or enters project identifier.  
   c. CMS retrieves data from IFMS regarding matching project EA and financials.  
   d. CMS retrieves data from XPM on the contract resources, estimates, timeline, budget, etc.  
   e. CMS retrieves data from eBID.  
   f. CMS displays information for Actor.  
   g. Actor accepts or rejects data.  
   h. CMS stores or rejects data change as instructed.  
   i. Actor enters any missing data.  
   j. CMS stores project data entered.  
   k. A new project is created in the CMS using data accepted and entered by Actor.

Business Rules

1. CMS will load only projects designated as construction from IFMS, PRSM and eBID.  
2. Actor is notified when key project data in IFMS, PRSM and eBID are modified for an active CMS project so they can determine if the CMS project data should be overridden.  
3. Select Caltrans staff must be notified when a project is automatically initiated.  
4. Caltrans staff use the system to establish tracking mechanisms at the beginning of the project including:  
   a. The funding source breakdown for a project by item.  
   b. Working days for a contract.  
   c. Linking to calendars associated with a contract.  
   d. Defining a further breakdown for each item and category including related location data.
Appendix A – Start Up Activities

2.1

e. Defining the payment type for each item on the contract.
f. Managing markups and surcharges on labor and materials on a contract.
g. Insurance certifications with notifications when they are close to lapsing
h. Required safety testing (i.e. tests for lead in blood) and training intervals.
i. The Contractor's possession of highway within 1/4 mile and tracks the possession.
j. Permit requirements and lapse dates.
   i. The system must notify the RE when permit dates are close to lapsing.
k. Survey requests.
l. Identifying fields that are mandatory on the Daily Diary at project start up.
m. Method of payment by item that will feed the Daily Diary breakdown for payment.

5. Caltrans performs an oversight function for projects that require only tracking of submittals, status of completion, contacts, consultants, start and finish dates, budgets and actual costs, permits (including but not limited SWPPP) and not the operation of these functions. They also need to be able to set up an Oversight Diary.

6. Caltrans utilizes Right of Way maps and agreements when managing a project.

7. REs need to establish and track the list of utilities involved in a project and who is responsible for payment.

8. The RE must establish office space for the project through Right of Way.

9. Caltrans has master and sub project.

Outstanding Issues

1. PRSM not implemented.
2. eBID not implemented.

Questions

1. N/A

Forms

1. Director’s order
2. Confirmation of Verbal Agreement
3. Expenditure Authorization
**USE CASE: ASSIGN RESOURCES (UC 1.4)**

**Brief Description**

Once a project is presented to construction for resource planning, the Senior Transportation Engineer (STE), Construction Manager (CM) or delegate accesses the CMS. The STE, CM or delegate selects which resources (RE or inspectors) to assign to the project. Any unfilled resources are then tracked by the CMS as a deficit.

**Actors**

1. Construction Manager (CM) or delegate
2. Senior Transportation Engineer (STE) or delegate

**Systems / Interfaces**

1. XPM (PRSM) to the CMS

**Preconditions**

1. Project Start-up data in the CMS (project established)
2. User notified of project
3. Resource estimates and current resource allocations in the CMS from PRSM (Establish Project)

**Flow of Events**

1. This use case begins when an STE, CM or delegate queries resource assignments.
2. The system responds by displaying resource assignments.
3. STE, CM or delegate assigns resources including the RE and inspectors to the project.
4. The system holds the resources as assigned.

**Postconditions**

1. Resources are assigned.

**Alternate Paths**

1. (Step 2) For projects that already have resources assignments, STE, CM or delegates can view and change the current assignment as well as available resources:
   a. The system responds with resource availability.
   b. STE, CM or delegate modifies resource assignments.
   c. The system holds the resources as reserved and maintains resource deficit if necessary.

**Business Rules**

1. Resource assignments are available in system for ad hoc / monthly queries / reports.
2. For structure contracts, resource is notified by hardcopy letter from HQ (non system rule).
3. Resources can be over-allocated for emergency projects.
4. Only one RE can be assigned per project.
5. The CM or delegate assigns the CE or RE to a project.
6. Resource / Hours are converted to PY Months / Days / Year.
Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. Notice of Assignment
USE CASE: MAINTAIN PROJECT CONTACTS LIST (UC 1.5)

Brief Description
The Project Contact List is a list of project contacts to support the RE in the management of the various project staff resources from areas such as Caltrans, Contractor staff, CHP, and Agency. This will often be outside of the scope of the specific resources for a project. For example, it could include contact information for project resources regarding local issues or the administrative staff of a specific project resource.

Actors
1. Resident Engineer
2. Project staff resources

Systems / Interfaces
1. eBID to the CMS for Contractor contact information, possibly Designer and Environmental Information
2. TOPSS to the CMS (Caltrans staff)

Preconditions
1. Contract award.

Flow of Events
1. CMS fills contact list with Contractor contact data from eBID.
2. The project staff reviews the project for applicable staff resources.
3. The project staff enters and maintains a list of contacts and their associated information throughout the life of the project.

Postconditions
1. A list of projects contacts is centrally maintained and available to project staff.

Alternate Paths
1. N/A

Business Rules
1. Certain groups need access to a list of confidential emergency contacts.
2. The system must also track telephone calls and other types of contact.

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. N/A
USE CASE: CONDUCT AND CAPTURE MEETING DATA (UC 1.6)

Brief Description
Pre-job conferences and meetings are held with Traffic, environmental, and materials representatives as well as others. Partnering activities are held to build relationships with the District Managers, COZEEP and SWPPP representatives, and the RE obtains vehicles, equipment, permits, office space and resources. These meetings are held to ensure that everyone involved understands their specific roles and the provisions of the contract. Data is captured regarding participants, outcome, issues discussed, and action items agreed upon. Construction conference requirements are outlined in the Construction Manual (5.002) for Caltrans personnel and (5.003) for Contractor.

Actors
1. Resident Engineer
2. Contractor
3. Labor Compliance Representatives
4. SWPPP Representatives
5. COZEEP Representatives
6. Surveys
7. Other stakeholders per (CM 5.002 and CM 5.003)

Systems / Interfaces
1. CMS

Preconditions
1. RE assigned
2. Meeting participants, location data in the CMS
3. Contacts Assigned to Project (UC 1.5)

Flow of Events
1. Once the contract has been awarded, RE gathers the contact information for all stakeholders in the process. The internal meetings may occur before award.
2. RE notifies attendees of meeting and communicates the time, list of participants and the location to gain agreement from all participants.
3. RE holds meetings with stakeholders to define roles and gain an understanding of the provisions of the contract.
4. RE documents meeting.
5. Pertinent data are captured in the CMS per post conditions / business rules.
6. RE categorizes meeting documents.
7. Pertinent documents are categorized and stored by CMS.

Postconditions
1. Job meetings held.
2. Meeting data (Attendance List / Meeting Topic / Issue-Resolution / Action Item) captured in the CMS by project, item on contract, and location where appropriate.
Alternate Paths

1. N/A

Business Rules

1. Meeting participants must be notified by an approved method (e-mail, instant message, text message/page, notification review screen, etc).
2. Meeting documents are categorized by project, category, item on contract, location and date.
3. Data is captured in accordance with requirements for FHWA audits, other regulatory agency audits, internal audits, and the Construction Bulletin Requirements (i.e. Safety and EEO).
4. Attendance list, meeting topic, issue resolution and action item by project, category, item on contract, and location data must be captured.
5. On projects involving structure construction personnel, preconstruction conferences are mandatory. Decisions regarding Office Facilities and Division of the Work must be tracked by work item. See Construction Manual Ch. 5, Sec 5-002.
6. CM 5.002 and CM 5.003 for Caltrans and Contractor preconstruction meeting requirements.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. Attendance Sheets
USE CASE: REVIEW AND ESTABLISH RE PENDING FILE IN PROJECT FILE (UC 1.7)

Brief Description
When the Project Development documents are completed by Design, the RE receives the RE Pending File. The RE establishes a filing system for the project contracts and other important documents. The RE also categorizes the files by detailed line item category.

Actors
1. Resident Engineer (RE)
2. Design
3. District Construction District Office
4. District Office Engineering

Systems / Interfaces
1. CMS

Preconditions
1. Project Development documents have been completed and handed over by Design.

Flow of Events
1. RE pending file documents are entered or scanned into the CMS.
2. RE is notified of Project Data (Pending File documentation).
3. RE reviews the documents and establishes the appropriate categorization.
4. RE categorizes documents.
5. CMS stores categorized RE pending file data.
6. CMS notifies RE of missing required documents.
7. RE maintains the file in the system and queries the data as needed.

Postconditions
1. RE Pending file data in the CMS by project, item, category, and plan sheet.
2. Remaining RE Pending file items in hardcopy form. (See Outstanding items).
3. Other special contract requirements / instructions are established (i.e. permits needed).

Alternate Paths
1. N/A

Business Rules
1. For a list of documents included in the RE Pending File in need of categorization, see Construction Manual Ch. 5, Sec. 5-001, Resident Engineer’s Pending File and Project Development Procedures Manual Appendix GG for RE File Check List.
2. RE pending file documents are categorized by project, item, category, and plan sheet. Document categorization information; see Construction Manual Ch. 5, Sec. 5-102, Organization of Project Documents.
3. The RE will be notified of the completion of the RE Pending File.

Outstanding Issues
1. N/A
Questions

1. N/A

Forms

1. For a list of documents included in the RE Pending File in need of categorization, see Construction Manual Ch. 5, Sec. 5-001, Resident Engineer’s Pending File and Project Development Procedures Manual Appendix GG for RE File Check List.
USE CASE: TRACK SUBMITTALS (UC 1.8)

Brief Description
The submittals are a list of mandatory forms and / or permits in the Standard Specification and / or Special Provision. The list of the mandatory submittals varies by project. Note: Pre-submittals required for the Contractor to start some work, but there are submittal requirements throughout the life of the project / contract that must be established and tracked.

Actors
1. Resident Engineer
2. Design or Office Engineer (OE)
3. Contractor

Systems / Interfaces
1. N/A

Preconditions
1. The RE has access to the RE pending file documentation in either hard or soft copy.
2. The Contractor has access to the Bid Award documentation in the CMS.

Flow of Events
1. The RE reviews the Standard Specifications and Special Provisions to determine the mandatory list of submittal documents from Design or OE.
2. The list of required submittal documents are entered into the CMS.
3. CMS stores the required submittals list with due dates.
4. The Contractor submits the mandatory submittals and / or permits.
5. The RE reviews the submittals and / or permits and approves or denies them.
6. The submittal and / or permit status data is entered into the CMS.
7. The approved submittals and / or permits are entered or scanned into the CMS.
8. CMS stores categorized submittal documents.
9. CMS notifies RE of any missing submittals documents as they are due.

Postconditions
1. The approved submittals and / or permits reside electronically in the CMS with their associated status history.
2. The CMS has generated a Start / No Start status for the submittal condition portion of the total Start Up process.

Alternate Paths
1. N/A

Business Rules
1. Submittal requirements may change during the life of the project.
2. The Contractor will need access for submittal of all required documents in electronic form.
3. One submittal required by Caltrans is a list of equipment. The equipment list must be maintained by Contractor.
4. Need to set up and track permits and utilities set up for electrical power, water, reclaimed water, sewer, telephone / data, etc.

5. Need to track the submission of the SWPPP or WPCP plan and the subsequent approval process against milestone dates.

6. Allow the SWPPP or WPCP plan to be amended and track approval process of the amendment.

7. Need the ability to identify / notify RE of items that may require a CCO due to SWPPP or WPCP factors, such as BMP maintenance and sample discharge.

8. Track SWPPP / WPCP required submittal due dates by event type, including but not limited to sample taken, discharge event, rain.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. For a list of documents included in the RE Pending File in need of categorization, see Construction Manual Ch. 5, Sec. 5-002.
USE CASE: DEACTIVATE A PROJECT (UC 1.9)

Brief Description
This use case focuses on when a project is put on hold or is rejected prior to start of work. The project must be re-scoped and re-bid. To reactivate a deactivated project CMS retrieves new project data from eBID.

Actors
1. Project Manager (PM) or delegate
2. Construction Manager (CM) or delegate
3. Resident Engineer (RE)
4. Office Engineer (OE)

Systems / Interfaces
1. N/A

Preconditions
1. CM or PM is notified that project has been rejected.
2. Project is active in the CMS.

Flow of Events
1. PM or CM selects a project from the list of projects or enters the project identifier.
2. CMS displays the project data.
3. PM or CM changes the project to status ‘inactive’.
4. CMS store the project status of ‘inactive’.
5. CMS releases the resources assigned to the project.

Postconditions
1. Resources assigned to the project are released.
2. Project status is ‘inactive’ in the CMS.

Alternate Paths
1. N/A

Business Rules
1. Cannot deactivate a project in Phase 4 where contract work has started.
2. Deactivated projects can be reactivated only by retrieving new project data from eBID.
3. All project data for a deactivated project must be maintained.
4. CMS should be able to archive a project for later retrieval.

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. N/A
**Process: Start Up Activities – System Set Up**

<table>
<thead>
<tr>
<th>Construction Management System (CMS)</th>
<th>Trigger: Project Presented to Construction</th>
<th>Inputs: CMS User Request forms, project data, RE pending file, pre-submittal forms, contact data, resource data</th>
<th>Outputs: Project active in CMS and Data Stored</th>
<th>Cycle Time: Periodic</th>
</tr>
</thead>
</table>

**TOPPS**

- TOPPS returns employee data

**CMS**

- CMS references TOPPS for Employee Data and stores data
- PRSM references TOPPS for Caltrans employees and store resources
- This functionality will be added to PRSM Requirements
- CM or Delegate creates or modifies resources and resource classifications, skills, availability etc.

**Managers**

**System Admin**

- System Admin adds or modifies Users
- UC 1.1
- UC 1.2
Process: Start Up Activities – Manage Pre Project Records

**Trigger:** Project Presented to Construction

**Inputs:** CMS User Request forms, project data, RE pending file, pre-submittal forms, contact data, resource data

**Outputs:** Project active in CMS, resources assigned and data stored

**Cycle Time:** Periodic

---

**From Page 2 A**
- **Contractor**
- Contractor submits pre-submittals
- Pre submittals are provided in the Standard Specifications and Special Provisions

**From Page 2 B**
- **Design**
- Project Rejected between phase 3 and 4

**RE**
- RE holds pre construction meeting
- RE submits and categorizes RE Pending File to CMS
- RE creates list of required submittals
- RE reviews submittals
- CMS receives RE's DE Pending File status
- CMS rejection of Submittals Status
- RE submits and indexes submittals
- RE placed project in inactive status in CMS
- Projects that are set to inactive must be re-bid to be activated. This requires all reactivations to pull new award and bid data from eBID.

**CMS**
- Stores categorized meeting documentation
- Store categorized RE Pending File in the Project File
- CMS checks for missing required RE pending file data
- CMS stores list of required submittals
- CMS stores categorized submittals and checks for missing required data
- CMS maintains the project and all data in a status of Inactive
- CMS Release Resources Assigned to project

---

UC 1.6
UC 1.7
UC 1.8
UC 1.9
A.2. CONTRACT MANAGEMENT

This functional area includes the following use cases:

- Build Staffing Plan and Compare to PM hours (UC 2.1)
- Update Staffing Plan (UC 2.2)
- Load Project Budget and Update Project Capital Budget (UC 2.3)
- Monitor and Track Actual, Personnel Years (PY), Expenses, Time (UC 2.4)
- Load / Update / Record As-Built timelines (UC 2.5)
- Construction Zone Enhanced Enforcement Program (COZEEP) (2.6)
- Manage Contract Budget and Contingency Balance (UC 2.7)
- Manage Survey Requests (2.8)
- Canceling a Contract after work begins (2.9)
- Terminating a Contractor after work has begun (2.10)
- Request for Additional Funds (UC 2.11)

The use case flow on the following page depicts the process flow of the use cases within the functional area:
USE CASE: BUILD STAFFING PLAN AND COMPARE TO PM HOURS (UC 2.1)

Brief Description
The use case describes the process of establishing a staffing plan for a project.

Actors
1. Project Manager (PM)
2. Construction Engineer (CE)
3. Resident Engineer (RE)
4. Construction Resource Manager (CRM)
5. Area Construction Manager (ACM)
6. Consultant
7. Local / other Governmental Agencies

Systems / Interfaces
1. PRSM – Provide PM estimates, project descriptions etc.
2. eBID – Provide contract information, start of work, project duration etc.

Pre-conditions
1. PM creates estimates of resource requirements:
   a. Staff Budget, Description, Schedule, Location
   b. Working Days, Plant Establishment, Other information
2. Resources are defined in CMS (UC 1.4).
3. Users have been created in CMS and assigned privileges appropriate to their roles and responsibilities (UC 1.1).

Flow of Events
1. This use case begins when the RE is notified of a new project in CMS (UC 1.3).
2. The CRM reviews the project information including estimates created by PM and information from the eBID system.
3. The CRM builds a staffing budget plan.
   a. Items impacting budget plan: weather, type of project, location, delays, proximity to other projects, productivity of resources.
   b. Staffing plan includes the type of resources required, the duration including start and stop dates and level of commitment for each resource.
4. CE reviews staffing budget plan created by the CRM.
5. Budget to plan is compared to staffing estimate from Project Manager.
6. PM is notified of significant differences between estimate and Budget.

Post-conditions
1. Staffing budget plan is built.

Alternate Paths
1. N/A

Business Rules
1. User must approve over-allocation of staff resources.
2. Project characteristics including type of project and location have an impact on the productivity of staff.
3. Staff allocation is dependent on milestones within a project.
4. Work plan data is stored and version control is applied to staff plans.
5. Users must have ability to query other projects by proximity / time.
6. Users must have ability to use productivity variables to adjust staff plans
   a) Fewer inspections = more productivity
   b) Travel / overhead time = less productivity
7. Ability to convert between Personnel Years / Work Breakdown Structure PY / W.B.S., etc.
8. Plans may be annotated to provide backup information for planning allocations (i.e. CE request).
9. Resources are managed based on peaks and valley in resource allocations (system ID’s resources by location) project / skills.
10. The support budget for individual jobs can vary, but the statewide budget for support is 15%.

**Outstanding Issues**

1. PRSM not implemented
2. eBID not implemented

**Questions**

1. N/A

**Forms**

1. CEM 2701 - Weekly Statement of Working Days
USE CASE: UPDATE STAFFING PLAN (UC 2.2)

Brief Description
The process of updating staffing plans to reflect changes in the project or Department budget.

Actors
1. Project Manager (PM)
2. Construction Engineer (CE)
3. Resident Engineer (RE)
4. Construction Resource Manager (CRM)
5. Area Construction Manager (ACM)
6. Consultant
7. Local / other Governmental Agencies

Systems / Interfaces
1. N/A

Pre-conditions
1. Staffing plan built.
2. Change in time / schedule / cost.
3. Project is suspended.
4. Change in project scope.

Flow of Events
1. This flow begins when the CRM is notified that a project staffing plan budget must be adjusted due to reduced availability of resources, and / or increased requirements for resources.
2. The CRM reviews the existing plan and other project plans which have similar characteristics such as proximity, resources, and dates.
3. The CRM modifies the plan and all other impacted plans.
4. The CRM reconciles conflicts such as under or over allocation of resources.
5. CE reviews modified plans.

Post-conditions
1. Plans are updated.

Alternate Paths
1. N/A

Business Rules
1. User must approve over-allocation of staff resources.
2. Project characteristics including type of project and location have an impact on productivity of staff.
3. Staff allocation is dependent on milestones within a project.
4. Work plan data is stored and version control is applied to staff plans.
5. Users must have ability to query other impacted projects by proximity / time.
6. Users must have ability to use productivity variables to adjust staff plans
   a) Fewer inspections = more productivity
   b) More Travel / overhead time = less productivity
7. Users must have the ability to manage a project based on PY, W.B.S., Cost in Dollars, etc.
8. Standard rates are used to calculate support costs for a project when converting from PY to dollars (Support Hours * Standard Rates = Support Dollars).
9. The support budget for individual jobs can vary, but the statewide budget for support is 15%.
10. Plans may be annotated to provide backup information for planning allocations (i.e., CE request).
11. Resources are managed based on peaks and valleys in resource allocations (system ID’s resources by location) based on project/skills.

**Outstanding Issues**

1. PRSM not implemented.

**Questions**

1. N/A

**Forms**

1. N/A
USE CASE: LOAD PROJECT BUDGET AND UPDATE PROJECT CAPITAL BUDGET (UC 2.3)

Brief Description
The process encompasses loading a project budget and updating the capital budget for a project.

Actors
1. Project Manager (PM)
2. Construction Resource Manager (CRM)

Systems / Interfaces
1. eBID
2. IFMS
3. PRSM

Pre-conditions
1. PM delivers project Support estimates.
2. eBID delivers Capital budget
   a. Bid amount plus a reserve for contingencies

Flow of Events
1. This flow begins when a project is created in CMS and budget data is loaded from PRSM.
2. The Capital Budget is loaded from the bid information in the eBID system.
3. The Capital Budget may be modified by Caltrans HQ. This data is transmitted to CMS from IFMS.

Post-conditions
1. Budget loaded / updated.

Alternate Paths
1. N/A

Business Rules
1. Updated budgets are reflected in CMS reports.
2. Critical warnings are created for budget variances outside user-defined thresholds of acceptable budget variance.
3. Budget updates from IFMS are automatically loaded to CMS.

Outstanding Issues
1. IFMS not implemented

Questions
1. N/A

Forms
1. N/A
USE CASE: MONITOR AND TRACK ACTUAL EXPENDITURES OF PERSONNEL YEARS (PY), EXPENSES, TIME (UC 2.4)

Brief Description

This use case describes the process of monitoring and tracking actual expenditures of labor, time, or money against a project and budget.

Actors

1. Project Management (PM)
2. Resident Engineer (RE)
3. Contractor
4. Headquarter (HQ) Office of Engineering
5. Office Engineer
6. Industry Working Days Calendars
7. Locals and Other Governments
8. Traffic Management Center
9. Construction Engineer (CE)
10. Construction Resource Manager (CRM)

Systems / Interfaces

1. PRSM – Tracks actual PY expended for a project by resources.
2. IFMS – Tracks actual expenditures for a project.
3. eBID – Contract award date, milestone dates etc.
4. TOPSS – Personnel data

Pre-conditions

1. Project has actual data.
2. Project is approved (after award).

Flow of Events

1. This flow begins when the project is awarded to a Contractor and work begins (the start of ‘working days”).
2. A business event occurs related to a project.
   a. Resource works on a project
   b. Expenses are incurred for a project
   c. Time passes after the start of work date
3. The business event is recorded in the Department’s data systems.
   a. Payment for Good / Service (IFMS)
   b. Work done by support staff (TOPSS)
   c. Milestone event (PRSM or CMS)
4. The Construction Engineer or his delegate compares actual data to plan and budget data for the project and makes decisions to ensure that project is within budget / planned resources.

Post-conditions

1. Budget variance report can be created to support management.

Alternate Paths

1. N/A
Business Rules

1. Actual support hour data are collected from TOPSS.
2. Actual cost data is collected from CMS and IFMS (for State furnished materials).
3. Actual time data is collected from RE daily Diaries (weekly statement of working days) (UC 3.4).
4. Standard rates are used to calculate support costs for a project when converting from PY to dollars (Support Hours * Standard Rates = Support Dollars).
5. Critical warnings are created for budget variances outside user-defined thresholds of acceptable budget variance.
6. The percentage of time expended for a project (based on schedule) must be equivalent to the percentage of budget (capital and support) expended for a project.
7. The support budget for individual jobs can vary, but the statewide budget for support is 15%.

Outstanding Issues

1. PRSM not implemented
2. IFMS not implemented
3. eBID not implemented

Questions

1. N/A

Forms

1. CEM 2701 – Weekly Statement of Working Days
USE CASE: LOAD / UPDATE / RECORD AS-BUILT TIMELINES (UC 2.5)

Brief Description
The process encompasses the loading, updating, and recording of the as-built timelines.

Actors

1. Project Management (PM)
2. Resident Engineer (RE)
3. Construction Resources Manager (CRM)
4. Contractor
5. Headquarter (HQ) Office of Engineering
6. Office Engineer
7. Industry Working Days Calendars
8. Local and Other Governmental agencies
9. Traffic Management Center

Systems / Interfaces

1. PRSM
2. eBID

Pre-conditions

1. PM develops timeline.
2. Timelines and milestones are created for the project in CMS.

Flow of Events

1. CRM uses Project Description to build timeline including all relevant milestones (1st chargeable workday, Construction Contract Acceptance, Close, etc).
2. CRM updates timeline as new information is available.
   a. Design / Funding / ROW / Utilities / Weather
3. CRM records actual timeline once project has been awarded.
   a. Start of work date from eBID.
   b. Critical Path Method (CPM) from Contractor.
   c. Record actual finish from RE.

Post-conditions

1. As-built timeline is recorded.

Alternate Paths

1. N/A

Business Rules

1. Milestones must be recorded to track project progress:
   a. OE milestones including Ready to List, HQ advertise, Bid, Award, Approval
   b. 1st chargeable working day
   c. Construction Contract Acceptance (CCA)
   d. Close Out
2. User defined dates / milestones must be defined to track project progress
   a. Incentives, etc.
3. Reports for missed or threatened milestones.
a. Note to appropriate personnel.
4. Milestones control staff plan.
   a. Bid to CCA.
5. Milestones from PM (PRSM).
6. Estimated CCA date calculated from Weekly Statement of Working Days.
7. Estimated CCA Date can be overridden by user (considers anticipated adjustments to CCA date, winter, including suspension, etc).
8. Reports required are estimated vs. actual vs. planned milestones.
   a. Comments field for annotation of why milestone missed.

Outstanding Issues
1. PRSM not implemented
2. eBID not implemented

Questions
1. N/A

Forms
1. CM 6301 – Contract Acceptance
USE CASE: CONSTRUCTION ZONE ENHANCED ENFORCEMENT PROGRAM (COZEEP) (2.6)

Brief Description
The process encompasses the statewide agreements with California Highway Patrol (CHP) to perform contracted work for Caltrans.

Actors
1. California Highway Patrol (CHP)
2. Resident Engineer (RE)
3. Caltrans Coordinator

Systems / Interfaces
1. CMS
2. IFMS

Preconditions
1. Statewide agreements for billing obtained.

Flow of Events
1. The RE completes form data CEM 2102 – COZEEP / MAZEEP Task Order Form in CMS.
2. The RE submits CEM 2102 request to CHP to request CHP assistance on site.
3. Notification of request is sent to Watch Commander at CHP (via email, fax or other).
4. CHP agrees to perform work.
5. RE tracks CHP response in CMS.
6. CHP arrives on site and performs or assists as requested.
7. RE tracks CHP attendance in COZEEP daily report (FORM CEM 2101).
8. Caltrans coordinator receives invoice from CHP and confirms hours against Diary entry.
9. Invoice approved and prepared for payment through IFMS.
10. CMS tracks running estimate of COZEEP funds against COZEEP allotment.

Post-conditions
1. COZEEP request managed.

Alternate Paths
1. CHP rejects task order request
   a. RE updates request status in CMS.
   b. RE performs task without CHP or submits new request form.
2. RE cancels request
   a. RE completes FORM CEM 2103 – COZEEP / MAZEEP Cancellation Form in CMS requesting the cancellation of the request.
   b. The RE submits CEM 2103 – CHP to cancel request for CHP assistance on site.
   c. CHP invoices Caltrans for cancelled request (dependent on timing of the cancellation).
   d. Caltrans Coordinator receives invoice from CHP and confirms Caltrans owes CHP for cancelled request.
   e. Invoice approved and prepared for payment through IFMS.
   f. CMS tracks running estimate of COZEEP funds against COZEEP allotment.
Business Rules

1. Ability to track requests and responses associated with the COZEEP work CEM 2102 COZEEP / MOZEEP Task Order requests including, but not limited to, dates, requests, responses and status of request.
2. Ability to track cancellation dates associated with COZEEP work in accordance with CEM 2103 – COZEEP / MOZEEP Cancellation Form.
3. Ability to record and track Diary information pertaining to COZEEP items in accordance with CEM-2101 COZEEP Daily Report (i.e. COZEEP Diary) providing data consistent with performing hours validation for invoices.
4. Ability to track running estimate costs of COZEEP allotment.
5. Ability to track approvals of invoice / hours data against the COZEEP Diaries.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM 2101 – COZEEP Daily Report
2. CEM 2102 – COZEEP / MAZEEP Task Order Form
3. CEM 2103 - COZEEP / MOZEEP Cancellation Form
USE CASE: MANAGE CONTRACT BUDGET AND CONTINGENCY BALANCE (UC 2.7)

Brief Description
This use case describes the process of managing the contract budget including allocation of contingency funds.

Actors
1. Project Management (PM)
2. Resident Engineer (RE)
3. HQ Office of Engineering
4. Office Engineer (OE)
5. Industry Working Days Calendars
6. Local and Other Governments
7. Traffic Management Center
8. Construction Engineer (CE)

Systems / Interfaces
1. IFMS
2. PRSM
3. eBID
4. CMS – CCO

Pre-conditions
1. Project is approved (after award).
2. Contract item information is recorded in CMS.

Flow of Events
1. RE determines budget requirements by contract item.
2. RE allocates contingency funds to contract items.
3. RE allocates contingency funds based on projected needs.
4. RE modifies allocations based on new information (such as market prices, CCO, claims, potential claims).
5. Contingency funds are expended for work performed.
6. Contingency fund allocations are released for work completed.

Post-conditions
1. Contract Budget and Contingency Funds are managed.

Alternate Paths
1. N/A

Business Rules
1. Contingency balance can be allocated by RE for anticipated needs.
2. Allocated contingency balance reduces the total available contingency when performing funds availability analysis.
3. Allocated contingency balance can be modified if no CCO exists.
4. Ability to allocate additional contingency funds to an existing CCO (as supplemental Change Order) if anticipated needs are identified.
5. If a CCO exists, the allocated contingency balance to support that CCO becomes unavailable for other items.
6. Mark completed items or CCOs as complete (i.e. Balance Complete) and releases previously allocated funds back to the contingency balance.
7. Allocations require justification / estimates.
8. Contingency allocation in excess of contingency balance initiates an additional funding request process (to avoid negative contingency balances).
9. Track and allocate contingency balance per funding sources previously setup during contract start-up and CCO process.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. N/A
USE CASE: MANAGE SURVEY REQUESTS (2.8)

Brief Description
This use case describes the actions taken in the management of survey requests for control stakes.

Actors
1. Contractor
2. Resident Engineer (RE)
3. Construction Office
4. Surveyor

Systems / Interfaces
1. N/A

Preconditions
1. Need for survey identified.

Flow of Events
2. Notification is sent to construction office for approval.
3. Construction office prioritizes request and assigns the survey in CMS.
4. If approved, the surveyor performs survey and completes survey form of results in CMS.

Post-conditions
1. Survey request managed.

Alternate Paths
1. (step 4) If rejected, request is sent back to Contractor with comments (for example if there are too many requests).
   a. Contractor resubmits request.
2. (step 1) In some cases RE can request a survey where they have a specific concern and track accordingly.
   a. No approval required
3. (step 5) If the stakes need to be reset, the Contractor follows the procedure (step 1-4).
   a. CMS tracks the restaking action and adds a line item to the after acceptance, pending an administrative deduction for the RE to review and approve.

Business Rules
1. Ability to restrict date / time of survey to be at least 48 hours from when the survey request was submitted.
2. The system to allow the Contractor to resubmit a request for survey after it has been rejected.
3. The system to track all dates associated with the Survey request and performance process, including request date, received date, approved date, reject date, performed date, etc.

Outstanding Issues
1. N/A
Questions
1. N/A

Forms
1. H-ESP-16 – Request for Construction Stakes
USE CASE: MANAGING A MAJOR INCIDENT (2.9)

Brief Description

This use case describes the actions taken when a major incident that affects the traveling public safety occurs on a job site.

Actors

1. Contractor
2. Resident Engineer (RE)
3. Assistant Resident Engineer (ARE)
4. HQ Safety Coordinator
5. HQ Communication Center
6. Claims Officer in Legal
7. Transportation Management System (TMS) Radio Room
8. Public Relations

Systems / Interfaces

1. N/A

Preconditions

1. A safety incident occurs that must be communicated and tracked.

Flow of Events

1. RE is notified of an incident.
2. RE or contractor completes FORM CEM 0603 in CMS.
3. Form is routed to a series of individuals through CMS and / or faxed as directed by the RE with confirmation of receipt to the RE.
4. Contractor or RE completes supplemental forms.
5. Supplemental form is routed to a series of individuals through CMS as directed by the RE with confirmation of receipt to the RE.
6. Contractor or RE completes final form.
7. Final form is routed to a series of individuals through CMS as directed by the RE with confirmation of receipt to the RE.

Post-conditions

1. Major incident is tracked.

Alternate Paths

1. N/A

Business Rules

1. RE receives confirmation of receipt of the form by the recipients.

Outstanding Issues

1. N/A

Questions

1. N/A
Forms

1. CEM 0603 – Major Construction Incident Notification
USE CASE: CANCELING A CONTRACT AFTER WORK BEGINS (2.10)

Brief Description
This use case describes the actions taken to cancel a project after work begins.

Actors
1. Contractor
2. Resident Engineer (RE)
3. Construction Office
4. Project Manager
5. HQ Construction

Systems / Interfaces
1. N/A

Preconditions
1. Need to cancel the contract is determined

Flow of Events
1. RE is notified that contract is to be cancelled.
2. RE creates CCOs as necessary to cover costs to make the job site area safe (UC 5.0).
3. RE cancels the contract in CMS and begins Project Close Out procedures (UC 4.0).
4. Contractor is paid for the work completed to date.

Post-conditions
1. Contract is cancelled

Alternate Paths
1. N/A

Business Rules
1. RE must have the ability to cancel a project after work has begun.
USE CASE: TERMINATING A CONTRACTOR AFTER WORK HAS BEGUN (2.11)

Brief Description
This use case describes the actions taken to terminate a Contractor after work has begun.

Actors
1. Contractor
2. Resident Engineer (RE)
3. District Construction Office
4. Project Manager (PM)
5. Bonding Agent
6. HQ Construction

Systems / Interfaces
1. N/A

Preconditions
1. Need to terminate a Contractor is determined.

Flow of Events
1. RE is notified that Contractor is to be terminated.
2. Contractor is paid for the work completed to date.
3. Bonding agent is informed they must complete the contract.
4. Bonding agent supplies new contract staff.
5. RE updates contact list (UC 1.5)
6. Bonding agent completes required submittals (UC 1.8)

Post-conditions
1. Contractor is terminated.

Alternate Paths
1. Contractor contests termination.
   a. Dispute resolution process is initiated.
   b. Return to Step 4 (in flow of events).

Business Rules
1. RE must have the ability to terminate a Contractor and identify new Contractor.
2. RE must have the ability to create a new list of required submittals without losing the history of the original submittals.
USE CASE: REQUEST FOR ADDITIONAL FUNDS (UC 2.12)

Brief Description
This use case describes the process of requesting additional funds for a contract.

Actors

1. Project Management (PM)
2. Resident Engineer (RE)
3. Headquarter (HQ) Office of Engineering
4. Office Engineer (OE)
5. Industry Working Days Calendars
6. Local / Other governmental agencies
7. Traffic Management Center
8. Construction Engineer (CE)
9. Headquarter (HQ) Construction Reviewer
10. District Construction Office

Systems / Interfaces

1. IFMS
2. CMS – CCO
3. PRSM
4. eBID
5. FHWA (FMIS)
6. Local / Other governmental agencies

Pre-conditions

1. Project has actual data.
2. Project is approved (after award).
3. Project requires additional funding.

Flow of Events

1. RE determines need for additional funding; contingency funds are or will be exceeded.
2. RE creates a request for additional funds (G12 funding request) including a financial status of the contract and the justification for the request.
3. The request is forwarded to the Division Chief for approval or rejection. If approved it is forwarded to the PM. If not approved, the request is returned for additional work.
4. PM reviews the request and modifies if necessary
5. PM sends request to Budgets to review and sends a copy to the CCO desk for informational purposes.
6. Budgets reviews the request and approves one of the options provided in the request or rejects the request.
7. If the request is rejected, move on to Alt Path 2 or to CCO to reduce the scope of the contract.
8. If the request is approved, Budgets creates a budget allocation transaction moving the money to the contract budget in IFMS and informs the district and the CCO desk of the decision.
9. IFMS updates CMS with the updated funding.

Post-conditions

1. Supplemental allotment is posted to contract file.
2. Contract balances are updated.
Alternate Paths

1. Fund request is rejected or funding request exceeds G12 allotment:
   a. The CTC Liaison is contacted
   b. Item placed on CTC agenda.
      i. Item doesn’t make agenda
      ii. Request rejected
   c. CTC votes (full or partial allotment approval)
   d. Actors specific to CTC:
      i. District Director
      ii. District Program Project Manager
      iii. HQ Program Project Manager
      iv. Resident Engineer (RE)
      v. Construction Engineer (CE)
      vi. CTC Liaison
      vii. HQ Construction Reviewer
      viii. District Construction Office Chief

Business Rules

1. CCO data including narrative, descriptions and amounts are available for use as backup to additional funding requests.
2. Contingency fund allocation is required to justify additional funds request.
3. Additional Fund request is governed by department policy (CM 5-203).

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
Process: 02 - Contract Management
(Create and Update Staffing Budget Plan)

**Trigger:** Project Awarded

**Inputs:** Contract Parameters, Resource Data (Estimated and Actual)

**Outputs:** Managed Project (Resource Plan, Project Budget, Contingency Budget)

**Cycle Time:** During Life of Project

---

**CMS**

- eID
- Resources Defined and estimated in CMS
- CMS sends notification to RE of new project
- Staffing Budget Plan entered / modified / tracked in CMS
- CMS compares estimate to Staffing Budget and notifies PM of variances

**Project Manager (PM)**

- PM creates estimate of resource requirements
- PM received notification of Staffing Budget variance report

**Resident Engineer (RE)**

- RE notified of new project

**Construction Engineer (CE)**

- CE Reviews Staffing Budget / Changes to Staffing Budget

**Construction Resource Manager (CRM)**

- CRM Reviews Project Estimates and builds Staffing Budget Plan
- CRM received notice of Staffing Plan adjustment needed

The Staffing Budget plan includes: resource type, duration, level of commitment, budget impacts, such as weather, location, delays, other projects, productivity of resources.
Process: 02 - Contract Management (Load Project Budget & Update Project Capital Budget)

**Construction Management System (CMS)**

**Process: 02 - Contract Management**

- **Version 1.0**
- **Date:** 12/26/05
- **Trigger:** Project Awarded
- **Inputs:** Contract Parameters, Resource Data (Estimated and Actuals)
- **Outputs:** Managed Project (Resource Plan, Project Budget, Contingency Budget)
- **Cycle Time:** During Life of Project

**Project Manager (PM)**

- PM has delivered project Support estimates

**CMS**

- Project and Budget Data
- PRSM
- Project & Budget Data from PRSM

- Bid Amount plus reserve for contingencies
- eBID
- Capital budget modifications after the initial load from eBID

- Critical warnings for budget variances outside of user-defined acceptable variances

**Headquarters**

- HQ performs Capital Budget Modifications
Process: 02 - Contract Management

(Monitor and Track Actual PV’s, Expenses, & Time (including As-Built Timeline))

**Trigger:** Project Awarded

**Input:** Contract Parameters, Resource Data (Estimated and Actuals)

**Output:** Managed Project (Resource Plan, Project Budget, Contingency Budget)

**Cycle Time:** During life of project

---

**CMS PROJECT**

**Appendix A – Contract Management**

**Version 1.0**

**Date:** 12/20/06

---

**Project Manager (PM)**

A business event occurs relating to the project

A business event is recorded in the Caltrans data systems

- Resource works on a project
- Expenses are incurred for a project
- Time passes after the start of work date

---

**CMS**

Timelines and Milestones are created for the Project in CMS

Tracks actual PY expended for a project by resource

Tracks contract award dates, milestone dates

Tracks actual support hours

Tracks actual expenditures for a project

- Build using Contract Acceptance, Ready to List milestones, etc.
- Update due to Design, Funding, Right of Way, Utilities, Weather, etc.

---

**Construction Resource Manager**

Build / Update Timeline using all relevant milestones

Record Actual Timelines once they are realized

- Start of work date from eBID
- CPM from contractor
- Actuals from RE

---

**Construction Engineer or Delegate**

Compare budget to actuals

---

Confidential

For Internal Caltrans Use Only

July, 2007

Page 66 of 277
Process: 02 - Contract Management (Manage Contract Budget and Contingency Balance)

<table>
<thead>
<tr>
<th>Construction Management System (CMS)</th>
<th>Process: 02 - Contract Management (Manage Contract Budget and Contingency Balance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 1.0</td>
<td>Trigger: Project Awarded</td>
</tr>
<tr>
<td>Date: 12/25/06</td>
<td>Inputs: Contract Parameters, Resource Data (Estimated and Actuals)</td>
</tr>
<tr>
<td></td>
<td>Outputs: Managed Project (Resource Plan, Project Budget, Contingency Budget)</td>
</tr>
<tr>
<td></td>
<td>Cycle Time: During Life of Project</td>
</tr>
</tbody>
</table>

Resident Engineer (RE)

- Determine budget requirement items
- Allocate contingency funds to/from items
- Allocate contingency funds based on project needs
- Modify allocations based on new information

CMS

Initial load of budget data

Contingency Funds Managed

Contingency Data

- Contingency Funds are released for work completed
- Additional Funds Request [UC 2-15]

Contractor

- Contractor performs work

Due to Market Prices, COO, Claims, Potential Claims, etc.

When allocated contingency funds are over allocated

Contract

July, 2007
## Process: 02 - Contract Management

**Input:** Contract Parameters, Resource Data (Estimated and Actual)

**Output:** Managed Project (Resource Plan, Project Budget, Contingency Budget)

**Cycle Time:** During Life of Project

### Construction Management System (CMS)

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request sent and tracked in CMS</td>
<td>Construction Office for request approval</td>
</tr>
<tr>
<td>CMS notifies Construction Office for request approval</td>
<td>CMS stores and tracks survey status and notifies Contractor</td>
</tr>
<tr>
<td>CMS stores and tracks survey request and assignment</td>
<td>CMS stores and tracks all survey data</td>
</tr>
<tr>
<td>Survey completed and tracked in CMS</td>
<td>CMS tracks the restaking and manages the admin deduction</td>
</tr>
<tr>
<td>Payment Estimate Process [UC 11.x]</td>
<td></td>
</tr>
</tbody>
</table>

### Contractor

- Contractor submits / resubmits survey request
  - This must be submitted with 48 hours advance notice

### Surveyor

- Surveyor performs survey and records results in CMS
  - Stakes need to be reset?
    - Yes
    - No

### Construction Office (CO)

- CO reviews for approval
  - CO prioritizes request and assigns the survey
    - Approved?
      - Yes
      - No

Currently, the admin deduction for restaking is handled on the after-acceptance payment estimate.

For Internal Caltrans Use Only
Process: 02 - Contract Management  
(Managing a Major Safety Incident)

<table>
<thead>
<tr>
<th>Construction Management System (CMS)</th>
<th>Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 1.0 Date: 12/26/06</td>
<td></td>
</tr>
<tr>
<td>Trigger: Project Awarded</td>
<td></td>
</tr>
<tr>
<td>Inputs: Contract Parameters, Resource Data (Estimated and Actual)</td>
<td>Contractor completes safety incident form in CMS</td>
</tr>
<tr>
<td>Outputs: Managed Project (Resource Plan, Project Budget, Contingency Budget)</td>
<td>Contractor completes supplemental form data as needed in CMS</td>
</tr>
<tr>
<td>Cycle Time: During Life of Project</td>
<td>Contractor completes final form data in CMS</td>
</tr>
</tbody>
</table>

CMS

- CMS stores and tracks all safety incident data
- CMS routes safety, supplemental, or final form data to a user-defined series of individuals
- CMS routes safety incident data

Resident Engineer (RE)

- RE completes final form data in CMS
- RE completes supplemental form data as needed in CMS
- RE completes safety incident form in CMS
- RE is notified of a safety incident

Either the contractor or the RE (not both) can complete this form data in CMS
Either the contractor or the RE (not both) can complete this form data in CMS

Confidential
For Internal Caltrans Use Only

July, 2007
Process: 02 - Contract Management (Request for Additional Funds, including G12 Requests)

Resident Engineer (RE)

- Determine need for additional funds
- Prepare request for additional funds memo in CMS
- RE: completes the Additional Funds Request in CMS
- RE enters the approved supplemental allotment into CMS

CMS

- Initial load of budget data
- eBID
- ITMS
- Budget/Actuals Data
- Daily Diary Data [UC 3.x]
- Supplemental Allotment and Contract Balances Managed

Reviewers

- California Transportation Commission votes on supplemental funds request:
  - Approved? Yes
  - Construction Division formally approves the request
  - No

Including all required justification:
- Why are additional funds needed?
- What work will be performed with the additional funds?
- What alternatives have been considered to mitigate the unforeseen expenses?
A.3. DAILY DIARY / INSPECTION PROCESS

This functional area includes the following use cases:

- RE assigns inspection work by category or location (UC 3.0)
- ARE / RE Inspects Work / Product (UC 3.1)
- Enter / Update / Submit ARE Diary into CMS (UC 3.2)
- Review ARE Diary Report (UC 3.3)
- Enter / Update RE Diary Entry in CMS (UC 3.4)
- Submit / File ARE / RE Daily Diary Reports (UC 3.5)

The use case flow on the following page depicts the process flow of the use cases within the functional area:
USE CASE: ASSIGN INSPECTION WORK (UC 3.0)

Brief Description

This process describes the Resident Engineer assignment of inspection work.

Actors

1. Assistant Resident Engineer (ARE)
2. Resident Engineer (RE)
3. Other Authorized Personnel (i.e. Office Engineer or other assigned Inspector)

Systems / Interfaces

1. N/A

Pre-conditions

1. Contract is awarded.
2. Contract items are available in the CMS to be defined by work breakdown structure (WBS) or other defined breakdown (i.e. by location range).
3. Pre-submittal of Contractor’s Equipment List with appropriate ID and resources submitted and in the CMS (after approval of contract).

Flow of Events

1. RE establishes categories as appropriate for the project (by item and further detail location and sub-location, type of work or other) and categorization is managed in the CMS.
2. RE assigns work item by category to ARE.

Post-conditions

1. Work items categorized by project-defined breakdown structure (i.e. down to location range).
2. Assigned work items for inspection stored in the CMS.

Alternate Paths

1. N/A

Business Rules

1. RE determines the level of detail for the categories by project up to and beyond the WBS level, as applicable, for the project.
2. Data are searchable by categories.
3. This process includes the setup, inspection and reporting frequency of Diaries.
4. Notify RE of missing Diaries based on established frequency criteria.
5. Allow the inspector the option to input (not restrict) a category assigned to a different inspector.
6. Establish and validate the labor and equipment (make, model, rate, etc.) at least once during the contract.
7. Need multiple configurable Diary templates for bridge vs. highway construction.
8. RE assigns inspection work by category, item, location or other level of detail determined by WBS or other designated level of detail (i.e. by location / sub-location).
9. RE assigns level of responsibility / authority for inspection, review, approval, etc.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. N/A
USE CASE: INSPECT WORK / PRODUCT (UC 3.1)

Brief Description
In this process the Assistant Resident Engineer (ARE) and Resident Engineer (RE) inspect the work of the Contractors and Subcontractors.

Actors
1. Assistant Resident Engineer (ARE)
2. Resident Engineer (RE)
3. Other Authorized Personnel (i.e. Office Engineer or other assigned Inspector)

Systems / Interfaces
1. Pavement, Asphalt, Concrete Reporting System (PACRS)
2. Independent Assurance (IA)

Pre-conditions
1. RE assigns categories for inspection (UC 3.0).
2. Monthly Critical Path Method (CPM) and two-week “look ahead” are submitted by Contractor.
3. Contractor / ARE hold discussion on day’s activities and issues.
4. Contractor performs work or delivers product.

Flow of Events
1. Identify item work and / or CCO work.
2. Inspector enters and CMS tracks labor and equipment information (including names, labor class, model, make, etc) and hours (to include idle or down time).
3. Inspector records weather conditions as applicable.
4. Inspector records discussion and conversation narratives in the CMS.
5. Inspector verifies material certifications and materials used in the CMS.
6. Inspector verifies quantities placed or the amount of work completed for the day.
7. Inspector validates and ensures the quality of work and records results.
8. Inspector takes photos of the project site, as deemed applicable / necessary.
9. Inspector requests materials testing, as applicable.
10. Inspector identifies location of work.

Post-conditions
1. Inspection results / observations recorded in the field are stored in the CMS.
2. Testing process and QC / QA processes initiated (UC 8.x), (UC 9.x).
3. Contractor notified of non-compliant work or product - Dispute Resolution (UC 14.x).

Alternate Paths
1. N/A

Business Rules
1. ARE inspects and records data in sufficient detail to:
   a. Permit review of Contractor’s cost.
   b. Identify applicable rental rates.
c. Identify labor classification and determine wage rate.
d. Facilitate the completion of FORM CEM-4601 or electronic equivalent (i.e. District 4’s CADb system).
e. Facilitate the approval of minimum use requirements.

2. ARE inspects and records Diary data in sufficient detail to facilitate the compliance with the Standard Specifications, Special Provisions, and plans within the tolerances specified in these documents. When tolerances are not specified, the engineer must use personal judgment in determining the allowable deviation consistent with the usage of the trades involved (CM 3-507).

3. See CM Chapter 3 - Section 5 Control of Work for general reference.

4. Inspect for quantities placed or the amount of work completed for the day.

5. Inspect for hours worked by labor and equipment (for extra work also). Provide sufficiently detailed data to permit a review of the Contractor’s costs in a manner similar to a force account analysis.

6. Adhere to each “During the Course of Work” section found in each section of Chapter 4 (i.e. 4-1003 Dust Control, During the Course of Work) in Construction Manual.

7. See Table 6-2.2 Inspection of Fabricated and Manufactured Materials, for Initial Inspection of Materials guidelines.

8. Validate equipment against Contractor submitted equipment list.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms / Shadow System Reference

1. Form: CEM-4601
   a. Currently used only as a reference. This form is only used as a reference due to its inclusion in the Construction Manual. Many districts use a variation of this form in the field.

2. Shadow System: District 4’s CADb System.
   a. District-built MS Access database structure with interfaces to CAS.

3. Shadow System: ePEG Construction Diary System by Bear River
   a. An online pilot project, which as of Nov 2006, is only used for large projects, such as the Bay Bridge.

4. Form: CEM-2701

5. Form: Weekly Status (used by Labor Compliance)
USE CASE: ENTER / UPDATE ASSISTANT RESIDENT ENGINEER DIARY REPORT (UC 3.2)

Brief Description
This process covers the entry and subsequent updating of the Assistant Resident Engineer (ARE) Diary Report data in the Construction Management System (CMS). The Diary process takes place daily and includes the recording of all events that transpire throughout the project, including observation of labor and equipment hours, weather, quantities placed, material testing needs, etc.

Actors
1. ARE – Assistant Resident Engineer

Systems / Interfaces
1. N/A

Preconditions
1. Data in the CMS from Inspection of Work / Products (UC 3.1).

Flow of Events
1. The ARE completes daily inspection.
2. The ARE enters data in the CMS in accordance with their inspection.
3. CMS stores Diary data in the CMS and notifies the Resident Engineer (RE) of completion of ARE report.

Post-conditions
1. ARE report data is in the CMS.
2. RE notified of the completed ARE Diary ready for review.

Alternate Paths
1. N/A

Business Rules
1. ARE Diary entries should be at a level of detail to facilitate the support of the following processes / current forms:
   a. Contract Transaction Item Calculation (see CM 5-103C (2) Completing FORM CEM-6004, “Contract Transactions Input”)
      i. Quantity Calculation Sheets CEM – 4801 (UC 10.1)
   b. Labor Compliance
      i. Certified payroll and daily actual labor
   c. Contract Change Order Process (UC 5.0), (see CM 5-103C (2c)) Contract Change Order Transactions
      i. Item over / under run adjustments calculation
   d. Extra Work Bills (UC 13.0)
      i. Items tracked by CCO number
   e. Dispute Resolution / Claims (UC 14.0, UC 15.0)
      i. Contractor deficiencies / inefficiencies
   f. Weekly Statement of Working Days data calculations
g. Materials on Hand Calculation, including location (UC 10.2)

h. CPM schedule

i. As-built plans

j. Portion of the work subcontracted

2. The ARE Diary entries of should be sufficient to demonstrate the performance of duties as those outlined in the CM, Chapter 4, and Construction Details.

3. The Diary entries must capture weather conditions to include daily temperature and a specific description of the daily weather in accordance with tracking the Weekly Statement of Working Days.

4. Associate item numbers with CCO numbers including all other detail information, including labor, equipment needed for tracking items.

5. ARE should record observations of contract compliance or noncompliance, actions taken, statements to / from the Contractor, and approvals given, including deficiency tracking (in a sense of traditional change management tracking).

6. ARE Diary entries may contain images / photos from the inspection process. This data would need to be available in the CMS and searchable by category, CCO number, or location.

7. The RE must be notified by an approved method (e-mail, instant message, text message / page, notification review screen, etc.).


9. Must provide for intermittent inspections of hours logged (supervisor review of duties).

10. Must allow the update of equipment ID and labor at the field level and reconcile with source data.

11. Must allow the recording of observations by location with remark types.

12. Associate scanned images and / or photos and time to item or CCO, as applicable.


14. Validate equipment and hours between and among projects to ensure overcharging is not occurring.

15. Allow multiple versions of Diaries for both the ARE and the RE to include draft, in progress, submitted, returned, filed, etc.

16. Consolidate Contractor and Subcontractor laborers and hours across multiple projects to ensure overcharging is not occurring.

17. Validate materials entered / used against Materials On Hand balance to ensure overcharging / over-use is not occurring.


19. Ability to track labor and equipment IDs in the field.

20. Ability to track items (labor and equipment) by / for multiple payment methods, including Lump Sum, Unit Price, and Force Account.

21. Ability to designate equipment (i.e. DBE truck) / labor as covered vs. non covered work. This allows hours noted in the Diary to be exempt from requiring certified payroll data from the Contractor.

22. The Daily Diary data must be searchable by item, category, location, date, etc.

**Outstanding Issues**

1. N/A
Questions

1. N/A

Forms / Shadow System Reference

1. Form: CEM-4601
   a. Currently used only as reference. This form is only used as reference due to it’s inclusion in the Construction Manual. Many districts use a variation of this form in the field.

2. Shadow System: District 4’s CADb System.
   a. District-built MS Access database structure with interfaces to CAS.

3. Shadow System: ePEG Construction Diary System by Bear River
   a. An online pilot project, which as of Nov 2006, is only used for large projects, such as the SF Bay Bridge.

4. Form: CEM-2701

5. CEM – 4801 Quantity Calculation Sheets
USE CASE: REVIEW ASSISTANT RESIDENT ENGINEER DIARY REPORT (UC 3.3)

Brief Description
This process is the review of the Assistant Resident Engineer (ARE) Diary report for accuracy, completeness, and objectivity.

Actors
1. Lead Worker
2. Office Engineer (OE)
3. Field Office Engineer
4. Resident Engineer (RE)

Systems / Interfaces
1. N/A

Preconditions
1. Entry and submission of the ARE Diary Report (UC 3.2).

Flow of Events
1. Review the ARE report for accuracy, completeness, and objectivity.
2. Identify revisions (if any) to the ARE report.
3. If revisions are required route ARE report back to ARE for changes.
4. If no revisions are necessary approve ARE report.

Post-conditions
1. Reviewed ARE report in the CMS.

Alternate Paths
1. N/A

Business Rules
1. This use case uses the same business rules specified in Use Case 3.2.
2. When the RE returns the report to the ARE for edits, the ARE must be notified by an approved method (e-mail, instant message, text message / page, notification review screen, etc.).
3. Allow for revisions and corrections to the approved ARE report with appropriate tracking and statuses.
4. Ability to sort reports by any logical data field.
5. Ability to copy an existing report for template use.
6. Ability to copy portions (i.e. comments) from an existing ARE report to be used in the RE report.
7. Each report must be uniquely identifiable in the system for query and reporting purposes.
8. Reports can be tied together or referenced to one other to facilitate audit. (i.e. one-to-many or many-to-many relationship between ARE reports and RE reports).
9. Ability to compare personnel hours on the report with TOPPS hours and identify variances for review.
10. Need a tool to facilitate Diary data cleanup, such as name correction, equipment recorded,
hours incorrectly reported, etc.
11. The Subcontractor and Contractor equipment and labor hours together should not exceed project specs and would need to verify these hours across multiple projects to ensure no overcharging is occurring.

Outstanding Issues
1. N/A

Questions
1. N/A

Forms / Shadow System Reference
1. Form: CEM-4601
   a. Currently used only as reference. This form is only used as reference due to it’s inclusion in the Construction Manual. Many districts use a variation of this form in the field.
2. Shadow System: District 4’s CADb System.
   a. District-built MS Access database structure with interfaces to CAS.
3. Shadow System: ePEG Construction Diary System by Bear River
   a. An online pilot project, which as of Nov 2006, is only used for large projects, such as the Bay Bridge.
USE CASE: ENTER / UPDATE RESIDENT ENGINEER DIARY REPORT (UC 3.4)

Brief Description
This process describes the entry and update of the Resident Engineer (RE) Diary into the Construction Management System (CMS).

Actors
1. Resident Engineer (RE)
2. Construction Engineer (CE)

Systems / Interfaces
1. N/A

Pre-conditions
1. Reviewed ARE Report Data in the CMS (UC 3.3).

Flow of Events
1. Enter RE report information into the CMS.
2. Review RE report information in the CMS.
3. Update RE report information in the CMS.
4. Submit to CE for review

Post-conditions
1. ARE / RE Diary Reports ready for CE review and filing in the CMS.
2. Weekly Statement of Working Days data available in the CMS.

Alternate Paths
1. N/A

Business Rules
1. An RE Diary entry must have each contract day during the project life or as defined in Start-Up (UC 1.3) represented.
2. Include any pertinent information even though no activity may have occurred. (This section taken from CM Chap 5, Sec 5-004).
   a) Important meetings, discussions and agreements with the Contractor. This includes names of specific persons to whom instructions were given or with whom agreements were made.
   b) A general statement about the type of work done. Include the controlling operation and any facts concerning the work’s progress.
   c) Weather conditions such as maximum and minimum temperatures and precipitation, among other items. Determine workable days based on controlling operations and other daily factors. Expand on exceptional weather conditions. Automatically record weather for the day based on zip-code (or GPS location, if available) from national weather service.
   d) Statements of any other important facts pertaining to the contract that are not specifically covered elsewhere in the contract records.
3. When the RE report is completed, the Construction Engineer, if he is setup as an approver
for this job, will need to be notified by an approved method (e-mail, instant message, text message / page, notification review screen, etc.)
4. Report to be searchable by keyword as well as filterable on all fields as needed.
5. Validate equipment and hours between and among projects to ensure overcharging is not occurring.
6. Allow for versioning and tracking of RE Diaries.
7. Route the RE Diary through a notification by an approved method (e-mail, instant message, text message / page, notification review screen, etc.)
8. RE report can be associated with one day or range of days.
9. Based on RE report, the Statement of Working Days data calculations should be automatically adjusted per RE Diary entry.
10. Need the ability to configure rules, requirements, and workflow regarding Labor Compliance interviews between the RE and Contractor / Subcontractor labor.
11. CMS should contain or be interfaced with all the calendars associated with the job in order to facilitate changes, configure notifications of deadlines, etc.
12. Working days data must be adjustable based on multiple factors and input, such as, if a CCO is assigned that modifies the controlling operation, Critical Path Method (CPM) schedule, director’s defined days, non-working days, table-Z days, or other identified days.
13. The controlling operation / critical activity per the CPM schedule should be factored into the progress calculation for payment (i.e. Ability to associate specific items to progress).

Outstanding Issues
1. N/A

Questions
1. N/A

Forms / Shadow System Reference
1. Form: CEM-4501
   a. Currently used only as reference. This form is only used as reference due to it’s inclusion in the Construction Manual. Many districts use a variation of this form in the field.
2. Shadow System: District 4’s CADb System.
   a. District-built MS Access database structure with interfaces to CAS.
3. Shadow System: ePEG Construction Diary System by Bear River
   a. An online pilot project, which as of Nov 2006, is only used for large projects, such as the Bay Bridge.
USE CASE: FILE ASSISTANT RESIDENT ENGINEER / RESIDENT ENGINEER DIARY REPORTS (UC 3.5)

Brief Description
This process encompasses the function of submitting and filing both the Assistant Resident Engineer (ARE) and Resident Engineer (RE) Diary Reports as complete in the Construction Management System (CMS) project file.

Actors
1. Resident Engineer (RE)

Systems / Interfaces
1. N/A

Preconditions
1. Complete ARE Diary Data in the CMS (UC 3.2, UC 3.3).
2. Complete RE Diary Data in the CMS (UC 3.4).

Flow of Events
1. Final review of ARE / RE Diary Data.
2. Submit ARE / RE Daily Diary reports as complete.
3. File ARE / RE Diary reports in project file as applicable.

Post-conditions
1. Completed / Filed Diaries in the CMS project file.

Alternate Paths
1. N/A

Business Rules
1. The RE’s Report cannot be submitted and filed without an entry or comment regarding the controlling operation for each day represented in the Diary.
2. When submitted, the RE reports need to be tied to ARE reports for audits and reporting.
3. Record and track the status of the Contractor agreement regarding the statement of working days, negative or positive based on the response by the Contractor, which is currently due within 15 days of submission.
4. RE needs the ability to create and automatically send to the Contractor a mini memo to put them on notice regarding an issue in the field.
5. Provide online system access (limited to data per user role) to the Contractor for validation and verification of Diary entry data.

Outstanding Issues
1. N/A

Questions
1. N/A
Forms / Shadow System Reference

1. Form: CEM-4501 and CEM-4601
   b. Currently used only as reference. These forms are only used as reference due to their inclusion in the Construction Manual. Many districts use a variation of these forms in the field.

2. Shadow System: District 4’s CADb System.
   c. District-built MS Access database structure with interfaces to CAS.

3. Shadow System: ePEG Construction Diary System by Bear River
   d. An online pilot project, which as of Nov 2006, is only used for large projects, such as the Bay Bridge.
A.4. CLOSE OUT

This functional area includes the following use cases:

- Project Acceptance (UC 5.1)
- Close-Out Utilities and Permits (UC 5.2)
- Minor B / Emergency Contract Close Out (UC 5.3)
- Post-Submittals (UC 5.4)
- Complete Final Records (UC 5.5)

The use case flow on the following page depicts the process flow of the use cases within the functional area:
Process: Close-out Activities

<table>
<thead>
<tr>
<th>Construction Management System (CMS)</th>
<th>Process: Close-out Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 1.0</td>
<td>Trigger: Work on Project is Complete</td>
</tr>
<tr>
<td>Date: 12/25/2006</td>
<td>Inputs: Work on project is completed</td>
</tr>
<tr>
<td></td>
<td>Outputs: Final Payment to Contractor, Project File Complete</td>
</tr>
<tr>
<td></td>
<td>Cycle Time: At Project Completion</td>
</tr>
</tbody>
</table>

Diagram:

- Maintenance / other divisions agree that work is complete
- Work on project is completed
- Safety Review complete
- Relief of Maintenance Letter
- Completed Diaries
- Reconciled Contract Items
- Completed Item Adjustments
- Completed Final Payment
- Resolved Claims

- Project Acceptance [UC 4.1]
- Minor B & Emergency Contract Close Out [UC 4.3]
- Accepted and Approved Contract
- Accepted and Approved Payment Method
- Payroll
- Payroll Estimate Process
- Permits in CMS with Valid Dates
- Closeout Utilities & Permits [UC 4.2]
- Notice of Completion
- Post Submittals complete and tracked in CMS
- Deductions returned to Contractor
- Forms routed to appropriate parties
**USE CASE: PROJECT ACCEPTANCE (UC 4.1)**

**Brief Description**

The process of Project Acceptance is accepting a project as complete once work on the project is done.

**Actors**

1. Resident Engineer (RE)
2. Contractor
3. District Director or Delegate
4. Construction Manager
5. Approving Functional Units
6. Construction Engineer

**Systems / Interfaces**

1. N/A

**Pre-conditions**

1. Work on project is complete.
2. Maintenance / other divisions as appropriate agree with information.
3. Safety review complete.
4. Relief of Maintenance (letter).

**Flow of Events**

1. All work and CCO work completed.
2. Punch list (Correction / Task Items) completed by Contractor.
3. All necessary concurrence is obtained.
4. Acceptance forms sent for approval to District Director / Office Chief / Delegate.
5. Approval.

**Post-conditions**

1. Accepted / Approved Contract.
2. Payment retentions available for release / payment.
3. Forms to be completed by the Contractor are determined (established during Start-Up activities).

**Alternate Paths**

1. No acceptance, after-acceptance documents are modified.

**Business Rules**

1. Contract Acceptance form is to be routed for approval to Office Chief Signature; approval must be received within 24 hours of work completed.
2. Final Inspection statement in RE Diary regarding Acceptance (work is complete / punch list is complete).
3. Must track approvals for informational purposes and not delay the process due to non-approval (i.e. cannot penalize the Contractor because the RE is not available for approval).
5. The system to send notifications of Project Acceptance to multiple parties (other Caltrans functional units as well as external parties).
6. Notification to Contractor of what they need to submit and when.
7. 60 days after Contract Acceptance “as builts” are due.
8. Notifications both internally and externally of deadline requirements.
9. CMS to track other timeline specific requirements through the project acceptance process, such as:
   a) Notifications for review / acceptance / signature.
   b) Deadline notifications generated by customizable business roles.

**Outstanding Issues**
1. N/A

**Questions**
1. N/A

**Forms**
1. CEM 0501 – Relief of Maintenance
2. CEM 6301 – Contract Acceptance
USE CASE: CLOSE-OUT UTILITIES AND PERMITS (UC 4.2)

Brief Description
This process is closing out utilities, leases, and permits associated with a project.

Actors
1. Resident Engineer (RE)
2. Functional Units
3. Project Manager (PM)
4. Outside Agencies
5. Construction Engineer
6. District Office Engineer
7. District Maintenance (Utilities)

Systems / Interfaces
1. N/A

Pre-conditions
1. Work is completed.
2. Project is accepted.
3. Permits are in CMS with valid dates.
4. Solid waste deliverable (Relief of Maintenance) is complete.

Flow of Events
1. At Contract Acceptance CMS notifies RE of any outstanding permits.
2. Submit form or letter for the following:
   a. Storm water coordinator *(Federal Clean Water Act Section 301 and 402) (CM Example 3-7.1)*.
   b. Utility account transfer.
   c. Fish and Game Permit *(Code 1602, 5650 as applicable) (CM Example 3-7.1)*.
   d. Army Corps of Engineers Permit *(Federal Clean Water Act Section 404) (CM Example 3-7.1)*.
   e. Railroad.
   f. Encroachment Permits.
3. Track dates regarding forms in CMS (such as received, submitted, accepted).

Post-conditions
1. Notice of completion

Alternate Paths
1. N/A

Business Rules
1. CMS to track list of forms needed to be completed along with pertinent dates such as: date due, date received, and date sent.
2. Utility account transfer reminder to occur within 30 days of project acceptance to remind RE that additional cost of utilities may be incurred if the account transfer is not submitted.
3. PRSM to provide close out milestone dates for permits (Interface).
4. Notifications to appropriate functional units / PM when actions have been taken (i.e. forms submitted for approval).
5. Permit triggers are project specific; therefore, the system must allow the use to add / modify rules regarding permits, such as a list of required permits and dates for this project to be added or modified.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM 4401 – Solid Waste Disposal and Recycling Report
USE CASE: MINOR B / EMERGENCY CONTRACT CLOSE OUT (UC 4.3)

Brief Description
This process describes project closeout of Minor B and Emergency Contracts are handled.

Actors
1. Labor Compliance
2. Resident Engineer (RE)
3. Head Quarters (HQ) – Division of Accounting (DOA)
4. District Office Engineer
5. District Estimates Desk
6. Contract Change Order Desk
7. District Maintenance for Emergency Contracts

Systems / Interfaces
1. IFMS to CMS (for receiving record tracking on final payment).

Pre-conditions
1. Project acceptance has been approved (UC 4.1).
2. Maintenance / other divisions as appropriate, verify that they agree with completed work information.
3. Safety review complete.
4. Relief of Maintenance (Letter).

Flow of Events
1. Contractor submits bill to the RE.
2. RE reviews the bill for accuracy.
3. Bill forwarded to Labor Compliance (for final payment only).
4. If Labor Compliance recommends deductions or penalties, CMS returns bill to RE for review and approval.
5. CMS sends (along with receiving record) bill to HQ DOA for Payment.

Post-conditions
1. Accepted and Approved payment method.
2. Contractor is paid.

Alternate Paths
1. N/A

Business Rules
1. The ability to track the closeout / payment process in CMS.
2. IFMS provides payment information and / or any penalties to CMS.
3. Payment within 45 days of invoice submitted.
4. IFMS provides notification within 30 days if not paid.
5. IFMS provides confirmation of receipt.
6. Cannot pay more than contract stated amount.
Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM 0601 - Construction Safety Report
2. CEM 0501 - Relief of Maintenance
3. CEM 6301 – Contract Acceptance
USE CASE: POST-SUBMITTALS (UC 4.4)

Brief Description
This process is the list of documents required by the Contractor or RE to complete in order to finalize the project documents.

Actors
1. Labor Compliance
2. Resident Engineer (RE)
3. Field Office Engineer
4. Contractor
5. Estimates
6. Construction Engineer
7. Accounting Service Center (ASC)

Systems / Interfaces
1. IFMS

Pre-conditions
1. Project Acceptance (UC 4.1).
2. Special provision items are completed.
3. Post Submittal list entered in CMS.

Flow of Events
1. RE notifies Contractor of forms needed.
2. Contractor completes forms and submits in CMS.
3. CMS notifies RE.
4. RE reviews and accepts or rejects forms.
5. Forward / route applicable forms to agencies and HQ as necessary.

Post-conditions
1. All submittals are complete.
2. Release the funds that were deducted.
3. Forms provided to appropriate parties.

Alternate Paths
1. If submittal is missed,
   a. Notification sent to a user defined list of recipients.
   b. Ensure the system takes the appropriate deductions (Labor Compliance Violations, Other Outstanding Deductions, and Administrative Deductions.
   c. RE fills out forms missed themselves.
   d. Release deductions as appropriate.

Business Rules
1. The system initiates the appropriate deductions (Labor Compliance Violations, Other Outstanding Deduction, Administrative Deductions).
2. For Federally Funded projects and projects greater than $1 M, Form FHWA 47 needs to be completed and submitted.
3. The receipt and approval of all submittals is tracked.
5. RE notifies Contractor of forms needed.
6. If CEM 4401 or FHWA 47 are not received within 5 days after Contract Acceptance, it is an automatic $10,000 deduction.
7. Verification of all forms
   a. See Forms

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM 2402 (F) – Final Report – Utilization of Disadvantaged Business Enterprise (DBE) First – Tier Subcontractors (Federally Funded Projects)
3. CEM 4401 – Solid Waste Disposal and Recycling Report
4. FHWA 47 – Final Inspection Form
USE CASE: COMPLETE FINAL RECORDS (UC 4.5)

Brief Description
This process is the completion of the final records for the project documents.

Actors
1. Resident Engineer
2. Construction Engineer
3. Field Office Engineer
4. Labor Compliance
5. District Records Officer
6. Estimates
7. Other Functional Units

Systems / Interfaces
1. N/A

Pre-conditions
1. Project accepted.
2. Diaries completed.
3. Contract items reconciled.
4. Items adjusted as necessary.
5. Final payment complete.
6. Claims resolved.

Flow of Events
1. Re completes document checklist.
2. Re or other completes audit (if necessary).
3. RE is released from ownership through sending / routing files to the District for further processing.
4. District forwards project file to Project Development / archive.
5. Design Construction creates history file from archived documents.

Post-conditions
1. Project File / History file created per check list.

Alternate Paths
1. Filed arbitration, document file would remain open.
2. Claims pursued, document file would remain open.

Business Rules
1. Track dates and locations of Project File.
2. Retain Project File / History File and follow retention schedule (State / Federal Guidelines) regarding how long these files need to be stored / accessible.
3. Notify the District, RE, Project Development, Design Construction as necessary per progress of project file.
4. Purge of electronic files (as you would paper files) per retention schedule.
5. Schedule specific number of days to turn in “as builts”.
6. “As builts” must be completed before District funding is removed (close the EA).

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CM 6301 – Contract Acceptance
2. STD 73 – Records Retention Schedule
A.5. CONTRACT CHANGE ORDER

This functional area includes the following use cases:

- CE initiates Contract Change Order (UC 5.0)
- Route CCO for Concurrence (UC 5.1)
- Obtain Prior Authorization (UC 5.2)
- CCO Approval and Acceptance Process (UC 5.3)

The use case flow on the following page depicts the process flow of the use cases within the functional area:
Process: Contract Change Order (CCO)

Version 1.0
Date: 12/26/2006

Trigger: Item over-run or under-run is identified, dispute resolution process, time conflict identified.

Inputs: unpaid CTIs, weekly statement of working days, MOH invoices statements of compliance, labor violations, admin. deductions, project initiation and update form (if applicable).

Outputs: CCO, CCO Memo
Cycle Time: any time

Contract is Awarded

Contract Deficiency Identified

Contract Items in CMS

CE Initiates CCO Request [UC 5.0] → CCO is prepared for routing → Route CCO for Concurrence [UC 5.1] → CCO/CCO Memo/Backup recommended for approval → CCO Approval/Acceptance Process [UC 5.3] → Executed CCO / Updated Contract

Obtain Prior Authorization [UC 5.2] → CCO work is started
USE CASE: CE INITIATES CONTRACT CHANGE ORDER (UC 5.0)

Brief Description

This process describes the CE initiation of the CCO once it is determined necessary.

Actors

1. Assistant Resident Engineer / Office Engineer
2. Office Chief
3. Division Chief
4. Senior Construction Engineer
5. Contractor
6. District CCO Desk
7. HQ Construction (Reviewer)
8. Internal Caltrans Division (functional unit)
9. Other - Regional Transportation Planning Agency (RTPA), Bay Area Transportation Authority (BATA), Federal Highway Administration (FHWA), funding partner, City and County

Systems / Interfaces

1. Integrated Financial Management System (IFMS)
2. Federal Highway Administration (FHWA aka FMIS)
3. Project Resource and Scheduling Management (PRSM)

Pre-conditions

1. Contract work begins.
2. Contract Items by W.B.S. (or other defined breakdown) are available in CMS.
3. Contract deficiency is identified by CMS, RE, or Contractor.

Flow of Events

1. The RE is made aware of the need for a Contract Change Order and informs CE.
2. The CE determines if the CCO is within the scope of the project and informs RE.
3. The RE determines if funds are available for the CCO.
4. RE consults with Construction Engineer, HQ Reviewer, and FHWA.
5. The RE or OE prepares the CCO.
6. The RE determines routing requirements in CMS.
7. The RE establishes electronic and / or paper route slip requirements in CMS.

Post-conditions

1. CCO is prepared and ready for routing (UC 5.1).

Alternate Paths

1. If the CCO is outside the scope of the project, a “Best Interest Letter” is required.
2. When no funds are available for the CCO a request for additional funds is prepared and routed by the RE.
Business Rules

1. RE records the reason for the CCO on the CCO.
2. All backup and support information required for review and analysis of CCO are stored with the CCO.
3. Available funding for CCO is tracked by CMS.
4. CCO functionality includes additional funds memorandum (funds request memo) functionality.
5. Funding requests are processed automatically by CMS.
6. CCOs are routed based on business rules defined by the Department and RE.
7. Contract and CCO characteristics recorded in CMS determine CCO concurrence requirements.
8. CCO hard-copy output is variable based on distribution (i.e. internal funding data or comments not distributed to Contractor or external organizations).

Outstanding Issues

1. IFMS not implemented.
2. PRSM not implemented.

Questions

1. N/A

Forms

1. CEM 4900 - Contract Change Order
2. CEM 4901 - Contract Change Order Input
3. CEM 4903 - Contract Change Order Memorandum
4. Prior Authorization to Proceed
USE CASE: ROUTE CCO FOR CONCURRENCE (UC 5.1)

Brief Description
This is the process where the Contract Change Order is routed for Concurrence.

Actors
1. Assistant Resident Engineer / Office Engineer
2. Office Chief
3. Division Chief
4. Senior Construction Engineer
5. District CCO Desk
6. HQ Construction (Reviewer) Contractor
7. Internal Caltrans Division (functional unit)
8. Other (RTPA, BATA, FHWA)

Systems / Interfaces
1. IFMS
2. FHWA (FMIS)
3. PRSM

Pre-conditions
1. RE prepares CCO and routing requirements (UC 5.0).

Flow of Events
1. CCO is routed for reviews and / or concurrences.
2. CCO is routed to HQ CCO Desk if CCO requires HQ approval.
3. Reviews are conducted sequentially or concurrently.
4. Results of reviews are recorded in the CCO file.

Post-conditions
1. CCO is concurred by internal and external parties and is ready for execution / acceptance.
2. CCO is revised and re-routed.

Alternate Paths
1. CCO is voided.

Business Rules
1. Backup and support information required for review and analysis of CCO is stored with the CCO.
2. Available funding for CCO is tracked by CMS.
3. Time extension and deferred time is tracked by CMS.
4. Funding requests are created automatically by CMS.
5. CCOs are routed based on business rules defined by the Department and RE.
6. Contract and CCO characteristics recorded in CMS determine CCO concurrence requirements.
Outstanding Issues

1. IFMS not implemented
2. PRSM not implemented

Questions

1. N/A

Forms

1. CEM 4900 - Contract Change Order
2. CEM 4901 - Contract Change Order Input
3. CEM 4903 - Contract Change Order Memorandum
4. Prior Authorization to proceed form
USE CASE: OBTAIN PRIOR AUTHORIZATION (UC 5.2)

Brief Description
This is the process of obtaining prior authorization, which is required to continue work on a project while a CCO is pending.

Actors
1. Assistant Resident Engineer / Office Engineer
2. Office Chief
3. Division Chief
4. Senior Construction Engineer
5. District CCO Desk
6. HQ Construction (Reviewer)
7. HQ CCO Desk
8. Contractor
9. Internal Caltrans Division (functional unit)
10. Other (RTPA, BATA, FHWA, HQ)

Systems / Interfaces
1. IFMS
2. FHWA (FMIS)
3. PRSM

Pre-conditions
1. RE Prepares CCO and routing requirements (UC 5.0).
2. CCO routed for concurrence.

Flow of Events
1. The RE determines that prior authorization is required.
2. The RE routes the CCO for prior authorization to the District CCO Desk.
3. The CCO Desk routes CCO to Construction Engineer for prior authorization.
4. The CCO Desk routes CCO to HQ CCO Desk for an Issue and Approval (IandA) if CCO requires HQ approval.
5. The RE issues a “Notice to Proceed” to the Contractor.
6. The RE directs the Contractor to begin work.

Post-conditions
1. Work stipulated on the Authorization to Proceed is started.
2. CCO is finalized and submitted for approval / authorization

Alternate Paths
1. CCO is voided.
2. CCO is revised and re-routed for concurrence / approvals.
3. CCO is processed unilaterally without Contractor agreement.

Business Rules
1. Backup and support information required for review and analysis of CCO are stored with
the CCO
  a. (See CM 5-103C (2c) Contract Change Order Transactions
     i. Item over / under run adjustments calculation
  2. CCOs are routed based on business rules defined by the Department and RE.
  3. Contract and CCO characteristics recorded in CMS determine CCO concurrence requirements.

Outstanding Issues

  1. IFMS not implemented
  2. PRSM not implemented

Questions

  1. N/A

Forms

  1. CEM 4601 - Assistant Resident Engineer’s Daily Report
  2. CEM 2701 - Weekly Statement of Working Days
  3. Prior Authorization to Proceed Form
  4. HQ Determination Form
USE CASE: CCO APPROVAL AND ACCEPTANCE PROCESS (UC 5.3)

Brief Description
This process is the submission of the CCO to the Contractor for acceptance and execution of the CCO.

Actors
1. Assistant Resident Engineer / Office Engineer
2. Office Chief
3. Division Chief
4. Senior Construction Engineer (CE)
5. Contractor
6. District CCO Desk
7. Deputy District Director (DDD)
8. HQ Construction (Reviewer)
9. HQ CCO Desk

Systems / Interfaces
1. IFMS
2. FHWA (FMIS)
3. PRSM

Pre-conditions
1. RE prepares CCO and routing requirements (UC 5.0).
2. CCO is reviewed and concurrence is obtained (UC 5.1).

Flow of Events
1. CCO is presented to the Contractor.
2. Contractor accepts the CCO.
3. CE recommends CCO for approval.
4. CE Approves CCO (if value is less than $50,000).
5. HQ issues an IandA (if required).
6. DDD approves the CCO.
7. Accepted CCO updates contract and funding data in CMS.
8. Issue CCO.

Post-conditions
1. CCO is executed.

Alternate Paths
1. CCO is processed unilaterally.
2. CCO is revised and re-routed.

Business Rules
1. Backup and support information required for review and analysis of CCO are stored with the CCO.
2. CCOs are routed based on business rules defined by the Department and RE.
3. Contract and CCO characteristics recorded in CMS determine CCO approval / concurrence requirements.

**Outstanding Issues**

1. IFMS not implemented.
2. PRSM not implemented.

**Questions**

1. N/A

**Forms**

1. CEM 4900 - Contract Change Order
2. CEM 4901 - Contract Change Order Input
3. CEM 4903 - Contract Change Order Memorandum
Process: Contract Change Order

Construction Management System (CMS)  Process: Contract Change Order

<table>
<thead>
<tr>
<th>Construction Management System (CMS)</th>
<th>Process: Contract Change Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 1.0</td>
<td>Trigger: Contractor, RE, other agency, District or Headquarters requests change of work</td>
</tr>
<tr>
<td>Date: 12/26/2006</td>
<td>Inputs: Request for change of work, item adjustments, resolved issues that require a CCO</td>
</tr>
<tr>
<td></td>
<td>Outputs: Executed CCO</td>
</tr>
<tr>
<td></td>
<td>Cycle Time: Varies, Any Time</td>
</tr>
</tbody>
</table>

Resident Engineer

Prior Auth Required?

- Yes
  - RE initiates routing of the CCO Prior Authorization
  - Authorized party (usually the RE) revises CCO

- No
  - CCO voided or revised?
    - Yes
      - CCO is ready for execution/acceptance
    - No
      - CCO voided

Readers (SCE, Internal Caltrans Division / District, Other Outside Agencies, etc)

- CCO / Prior Authorization is routed for reviews and/or concurrences

- Review results recorded and tracked in the CCO file

- Accepted?
  - Yes
  - CCO voided or revised?
  - Yes
    - CCO is ready for execution/acceptance
  - No
    - CCO voided

- HQ Issued: Notice to Proceed to RE

- Reviews are conducted sequentially or concurrently

- Prior Auth

- Authorized party voids CCO
A.6. LABOR COMPLIANCE

This functional area includes the following use cases:

- Receive Payrolls from Contractor (UC 6.1)
- Import Labor Rates (UC 6.2)
- Analyze Compliance Data (UC 6.3)
- Track Compliance and Respond to Compliance Issues (UC 6.4)
- Pursue Labor Case (UC 6.5)

The use case flow on the following page depicts the process flow of the use cases within the functional area:
USE CASE: RECEIVE AND VALIDATE PAYROLLS FROM CONTRACTOR (UC 6.1)

Brief Description

The Contractor submits the certified payrolls to District Labor Compliance office.

Actors

1. Resident Engineer (RE) – Manages the contract.
2. Contractor – The Prime Contractor on the awarded contract and submits payrolls.
3. Subcontractor – Submit payrolls
4. District Labor Compliance Officer – Imports payrolls and monitors for compliance.

Systems / Interfaces

1. Contractor Payroll Systems

Preconditions

1. Contractor electronic payroll file has been created.
2. Contractor has verified payrolls with Subcontractors.
3. Project is active in the CMS (C 1.0).

Flow of Events

1. Payrolls uploaded by the Contractor in an electronic file.
2. CMS validates payroll data is complete and passes system edits.
3. CMS stores payroll by payroll period.

Postconditions

1. Contractor payroll evaluated and loaded by the CMS.

Alternate Paths

1. Payrolls submitted by the Contractor through direct entry into the CMS (FORM CEM 2502 or CEM 2503, CEM 2501).
   a. CMS validates payroll data is complete.
   b. CMS notifies the Contractor of any data errors found during validation of the payroll.
   c. Once all data errors are corrected, CMS stores payroll by payroll period.
2. Data is incomplete or fails critical edits.
   a. CMS determines the payroll data fails critical edits.
   b. CMS notifies the Contractor of the file errors.
   c. Contractor cancels payroll load.
   d. Contractor resubmits payroll.
3. Data fails non critical edits.
   a. CMS determines the payroll data fails non critical edits.
   b. CMS notifies the Contractor of the file errors.
   c. District Labor Compliance or delegate review errors.
   d. District Labor Compliance or delegate requests corrected payroll data if necessary.
   e. Contractor resubmits payroll.
Business Rules

1. More than one payroll may be received for one Contractor per period.
2. Payroll must be received by the 15th of the month following the reporting period.
3. Payrolls must be weekly to validate overtime rules.
4. The system must notify assigned Caltrans users when Contractor payroll is missing.
5. The system must track missed payrolls and withholding.
6. A unique missed payroll period Labor Compliance Violation (LCV) deduction occurs once for a given payroll period, it does not compound.
7. Contractors have the right to submit corrected payrolls.
8. Labor Compliance must have a method of tracking payrolls submitted in hardcopy in case of exception. The rule will be to require electronic payroll data.
9. After initial set up of the payroll format, the Contractor must have the ability to submit the payroll directly to the CMS.
10. Electronic payroll formats will vary (for example Excel to delimited flat files) from payroll companies.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM 2501 – Fringe Benefit Statement (first payroll and any compensation changes only)
2. CEM 2502 – Contractor / Subcontractor Payroll
3. CEM 2503 - Statement of Compliance
USE CASE: IMPORT LABOR RATES (UC 6.2)

Brief Description
Labor Compliance uses DIR and DOL labor rates to verify pay rates on Contractor certified payrolls. Labor Compliance also compares the DIR apprentice standards including certification dates. This use case describes the upload of these labor rates and certification dates to the system.

Actors
1. Labor Compliance Officer
2. Department of Industrial Relations (DIR)
3. Department of Labor (DOL)

Systems / Interface
1. eBID – Contract Dates and Terms governing labor rates.
2. DAS – Division of Apprenticeship Standards database through Internet
3. DMV - For truck Owner-Operators
4. DIR systems
5. DOL systems

Preconditions
1. DOL labor rates applicable to the advertisement date from eBID are downloaded for each contract.
2. Labor Rates are available through the DIR.

Flow of Events
1. Labor Compliance retrieves the labor rate file from DIR.
2. Labor Compliance retrieves the apprentice standards from DIR.
3. Labor Compliance retrieves the labor rate file from DOL.
4. Labor Compliance retrieves the labor rate for apprentices from the DAS database through Internet.
5. Labor Compliance enters the labor rate file and apprentice standards in CMS.
6. CMS validates the labor rate file.
4. CMS validates the labor rate file data is complete.
5. CMS stores DIR labor rates by period.

Postconditions
1. DIR and DOL labor rates are available for validation against Contractor payrolls.

Alternate Paths
1. (Step 1) DIR or DOL systems are not available for download.
   a. Labor Compliance retrieves the labor rate information from DIR and DOL in hardcopy.
   b. Labor Compliance enters all of the labor rates for the classification for the project.
   c. (Step 4).
Business Rules

1. Labor rates must be stored and validated for specified periods of time for reference against Contractor payrolls.
2. Labor rates may be overridden or added for specific contracts.
3. The system must apply the labor rates in effect within 10 days of bid opening to the contract (between advertisement and bid date) and apply rates included per the CCO.
4. DOL and DIR effective dates for labor rates may vary depending on contract language.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
USE CASE: ANALYZE COMPLIANCE DATA (UC 6.3)

Brief Description

Labor Compliance compares the payroll data, labor rates and the Resident Engineer’s Diary to identify any compliance issues.

Actors

1. Resident Engineer (RE) – The RE is responsible for managing the awarded contract.
2. Assistant Resident Engineer (ARE) – Inspector preparing Daily Diary
3. District Labor Compliance Officer
4. Contractor
5. Payment Estimates Desk

Systems / Interfaces

1. N/A

Preconditions

1. Items are identified and associated with Contractors (UC 1.3).
2. Updated labor rates in the CMS (UC 6.2).
3. Diary and weekly status report complete (UC 3.2).
4. Contractor payrolls loaded successfully (UC 6.1).

Flow of Events

1. CMS compares the payroll data to the Diary data for each of the Contractor’s staff when the payrolls are submitted or on the 15th of the month following a specified reporting period.
2. CMS compares the payroll data to the DIR and DOL labor rates.
3. CMS notifies Labor Compliance of the results of the compliance analysis for the reporting period.
4. Labor Compliance reconciles the compliance analysis modifying any mistaken compliance issues.
5. CMS notifies the District Labor Compliance, RE, ARE, and the Contractor of the final result of the compliance analysis for the reporting period.

Postconditions

1. Contractor payrolls and Diaries are analyzed for compliance issues.

Alternate Paths

1. N/A

Business Rules

1. Payroll must be received by the 15th of the month following the reporting period.
2. Payrolls must be weekly.
3. The system must notify assigned Caltrans users when Contractor payroll is missing.
4. The system must check for:
   a. Wage rates against classifications and labor rates
      i. Wage rates are composed of basic hourly wage rate plus fringe benefits
b. Hours for overtime per labor contracts and laws.
   i. Overtime is calculated as one and one-half times the basic wage rate (not including fringe benefit)
   ii. For federal aid projects, where the employee maybe paid greater than the prevailing rate, the hourly rate, less the fringe benefits payment is the basic hourly rate for overtime calculation, although they are not always
   iii. Union contracts and state and federal laws govern overtime pay.

c. Labor charged by the Contractor for extra work with the corresponding payrolls.
   i. The Extra Work Bill must show the identical labor classifications, hours worked, and wage rates, including fringe benefits that are shown on the certified payroll.
   ii. EWB should not be paid until the discrepancy is corrected or it is determined to be a Labor Compliance issue and not an extra work overcharge.

d. Appropriate travel and subsistence pay according to DIR bargaining agreements (this requires manual input).

e. Missing employees between payrolls and Diaries.

f. Missing payroll periods.
   i. The letter regarding missed payrolls should advise the Contractor that if the payroll is not received within 10 days of receipt of the notification, penalties will be assessed in accordance with Section 1776(g) of the California Labor Code in the amount of $25 (or current legal rate) per worker for each calendar day the payroll has not been submitted. This is a penalty.

g. Registered apprentices and percentage vs. journeymen against Division of Apprenticeship (DAS) standards.
   i. CMS queries the DAS database through internet.

h. For equipment owner-operators, Labor Compliance deducts the prevailing equipment rental rate for the area from the gross hourly rate shown on the owner-operator listing for State contracts, not Federal (CEM 2505 – Owner Operating Listing Statement of Compliance). Labor Compliance must determine the amounts.
   i. On Federal Aid projects, check for restricted classifications.
   j. The deduction breakdowns should be clear, complete and concise in accordance with DOL Code of Federal Regulations Title 29, Part 3 and Chapter 1.

5. If the State and Federal rate differ, the higher rate is used to compare to the payroll.

6. A single worker may work under several classifications during the course of one day. The Contractor may choose to:
   a. Report the hours under a single classification as long as it is reported at the classification with the highest wage rate or
   b. Report the hours separately for each classification.

7. The work day runs from 12:01 AM ending 12:00 AM. For Contractors working at night, payrolls should reflect regular pay rates of hours, for example on Friday, and premium pay rates starting at 12:01 AM on Saturday morning.

8. Some labor classifications may not be covered by a federal wage determination; Labor Compliance must determine the wage classification for the employee. Labor Compliance
may complete a Department of Labor Form SF-308 – Request for Wage Determination and Response to Request. State rates are determined 45 days prior to contract advertisement. Federal rates can be determined during the project.

9. All analysis data and results must be available for ad hoc reporting.

10. Contractors enter data for the annual EEO 1391 report providing a snapshot of employment data on the last full week of July (such as ethnicity, gender, etc.).
    a. EEO 1391 should include all sub Contractors listed at bid (over $10,000 on the contract).

11. CMS should link to the DMV database to verify Truck Owner-Operators are owners of their trucks.
    a. If DMV database is not available, CMS will support alternate method to verify Owner-Operator tracking

12. Contractors complete Fringe Benefits Statements at the beginning of a contract that supply the fringe benefit amounts for wage comparisons.

13. Labor Compliance is not determined until Diaries are finalized for the period.

14. Emergency contracts are governed by Department policy which caps the rate paid to owners.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM 2505 – Owner Operating Listing Statement of Compliance
2. EEO 1391
USE CASE: TRACK COMPLIANCE AND RESPOND TO COMPLIANCE ISSUES (UC 6.4)

Brief Description
If the District Labor Compliance Officer finds any discrepancies, the Contractor is notified in writing of the discrepancy.

Actors
1. Labor Compliance Officer (LCO)
2. Contractor – The Prime Contractor on the awarded contract.
3. Sub Contractor
4. Resident Engineer (RE)
5. District Estimates Desk

Systems / Interfaces
1. N/A

Preconditions
1. CMS has and is tracking an identified discrepancy, omission, or other issue associated with a complaint. (UC 7.3).

Flow of Events
1. CMS notifies the assigned Caltrans users that payroll was not received by the 15th; data has discrepancies, or is incomplete.
2. Labor Compliance reviews the missing document notice and receipt history and confirms the missing document violation.
3. Labor Compliance creates a Labor Compliance Violation (LCV) deduction request through CMS.
4. CMS notifies the Contractor of the missing payroll.
5. RE reviews the LCV deduction and approves or modifies the withholding of funds.
6. CMS notifies the Contractor of the LCV deduction.
7. CMS tracks the LCV deduction, withholding the appropriate amount in the payment estimate process.
8. Contractor submits payroll successfully.
9. CMS notifies Labor Compliance of LCV recovery.
10. Labor Compliance releases LCV withhold.
11. CMS releases withhold increasing the next payment in the payment estimate process. (Labor Compliance is not supposed to release part of a withholding; the entire compliance issue triggering the withholding of funds must be met before any of the withholding will be released.)

Postconditions
1. Compliance issue is researched and either resolved or turned into a labor case.

Alternate Paths
1. The RE interviews the Contractor staff
   a. The RE or Labor Compliance records the interview in the CMS (FORM CEM 2504).
b. Labor Compliance determines if there is a discrepancy.
c. (See 2.a)

2. CMS finds a compliance issue due to wage violations:
   a. Labor Compliance contacts the Contractor to resolve the compliance issue.
   b. Labor Compliance enters data on the contact with the Contractor and the resolution of the issues in the CMS.
   c. CMS tracks the compliance issues.
   d. Labor Compliance creates an LCV deduction request through CMS.
   e. RE reviews the LCV deduction and approves the withholding of funds.
   f. CMS notifies the Contractor of the LCV deduction. The employees involved in the case must remain anonymous for confidentiality purposes.
   g. CMS tracks the LCV deduction withholding the appropriate amount in the payment estimate process.
   h. Contractor resolves the compliance issue successfully.
   i. Labor Compliance tracks any restitution paid to the employee and how it was paid in the CMS.
   j. Labor Compliance releases LCV withhold.
   k. CMS releases withhold increasing the next payment in the payment estimate process.

3. Caltrans receives a complaint from employees, union representatives, or monitoring representatives:
   a. Labor Compliance enters complaint data into CMS including parties involved, when violation occurred, type of violation, where violation occurred, etc.
   b. Labor Compliance conducts interviews with the Contractor’s employees to verify compliance and determine if the information on the complaint received is valid and any attempts to resolve.
   c. Labor Compliance updates CMS with any activity taken to resolve the complaint.

Business Rules

1. The system must track missed payrolls and withholding.
2. Penalties are not returned to the Contractor.
3. The RE must conduct a minimum of three Contractor interviews per classification for each contract each month.
4. The system must track interview data:
   a. Who was interviewed (sufficient identifying information)
   b. How many interviews
   c. When
   d. Where
5. The system must track complaint and compliance issue progress including:
   a. Data on source document reviews
   b. Complaints investigated or not
   c. Restitution collected at the district level (RDL)
   d. When investigation took place
   e. Resolution of investigation
   f. Decisions regarding action including who approved or denied, when and what was approved or denied.
Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM 2504 – Employee interview: Labor Compliance / EEO
2. CEM 2506 – Labor Compliance – Wage Violation
3. CEM 2507 – Labor Violation: Case Summary
4. HC-40 and HC-40A
USE CASE: PURSUE LABOR CASE (UC 6.5)

Brief Description

Labor cases can result from a compliance issue received through complaints, payroll review or interviews that are not resolved.

Actors

1. Resident Engineer – The RE is responsible for managing the awarded contract.
2. Contractor – The Prime Contractor or Subcontractor on the awarded contract.
3. Labor Compliance Officer (LCO)
4. Employees
5. Union Reps
6. Monitoring Reps
7. Headquarters Labor Compliance (HQ)

Systems / Interfaces

1. N/A

Preconditions

1. A compliance issue is researched and not resolved with Contractor (UC 6.5).

Flow of Events

1. District Labor Compliance does source document review.
3. District Labor Compliance submits case to HQ Labor Compliance including Diary reports, interview results, and payrolls for review.
4. District Labor Compliance completes a compliance letter (recommendation for LC action) in the CMS and provides to HQ for review.
5. District Labor Compliance initiates Labor Compliance Violation (LCV) deduction against Contractor for labor case.
6. HQ reviews complaint and generates letter to DIR for approval of recommendation on compliance issue in the CMS.
7. DIR reviews complaint and approves, denies or modifies recommendation.
8. HQ notifies the district of case approval.
9. District Labor Compliance sends notification to Contractor.
10. District Labor Compliance tracks results in the CMS.
11. HQ Labor Compliance takes LCV penalty from Contractor for labor case (these are not released to the Contractor).

Postconditions

1. Labor Case has been pursued.

Alternate Paths

1. (Step 10) Contractor requests hearing from HQ Labor Compliance
   a. HQ requests a hearing from DIR.
   b. HQ notifies Labor Compliance of hearing and results.
c. Labor Compliance tracks request for hearing and results in the CMS.

2. (Step 10) Contractor requests Evidence from HQ Labor Compliance.
   a. HQ gathers and provides evidence to Contractor and notifies district Labor Compliance.
   b. Labor Compliance tracks evidence request in the CMS.

**Business Rules**

1. The system must track complaint and compliance issue progress including:
   a. Data on source document reviews
   b. When investigation took place
   c. Resolution of investigation
   d. Decisions regarding action including who approved or denied, when and what was approved or denied.

2. When a source document review is conducted the District Labor Compliance completes forms
   a. CEM 2508 – Contractor’s Payroll Source Document Review
   b. CEM 2509 – Checklist – Source Document Review

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. CEM 2508 – Contractor’s Payroll Source Document Review
2. CEM 2509 – Checklist – Source Document Review
A.7. DISADVANTAGED BUSINESS ENTERPRISE / DISABLED VETERAN BUSINESS ENTERPRISE (DBE / DVBE)

This functional area includes the following use cases:

- Receive, Review and Forward List of DBE / DVBEs (UC 1.X) Move to Startup
- Track DBE / DVBE use on Contract and Respond to Compliance Issues (UC 7.2)
- Contractor Responds to DBE / DVBE Issue (UC 7.3)
- Contractor Completes Work and Submits Final Report of DBE / DVBE and 1st tier Subcontractor utilization (UC 7.4)

The use case flow on the following page depicts the process flow of the use cases within the functional area:
Process: DBE/DVBE

<table>
<thead>
<tr>
<th>Trigger: Contract with DBE/DVBE commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputs: Contractor Payroll, Daily Diaries, Complaints, Form 2402 and/or S</td>
</tr>
<tr>
<td>Outputs: Labor Case, DBE/DVBE reports to Civil Rights</td>
</tr>
<tr>
<td>Cycle Time: Life of Contract</td>
</tr>
</tbody>
</table>

1. Receive payrolls from Contractor [UC 6.1]
   - Validated payrolls in CMS

2. Import Labor Rates [UC 6.3]
   - Labor rates in CMS

3. RE enters daily diaries [UC 3.2]
   - Weekly Listing of Contractors/Subcontractors
   - Daily Diaries
   - Interview results

4. Interview contractor and subcontractor staff [UC 9.4]
   - Contractor Acceptance (Close Out) [UC 4.4]

5. DBE/DVBE commitment
   - CMS retrieves DBE/DVBE data from EBID [UC 7.1]
   - DBE/DVBE commitment in CMS

6. Track DBE/DVBE use on Contract [UC 7.2]
   - Contractor receives written notice of non-compliance

7. Form 1201
   - Contractor receives written notice of non-compliance
   - Contractor responds to notice of compliance violation [UC 7.3]

8. Form 2401
   - Good faith effort documentation
   - Contract commitment changed

9. RE receives Email or Fax of Non-Compliance
   - Notify Estimated Desk of Non-Compliance

10. Progress Pay
    - Respond to Labor Issues and Pursue Labor Case [UC 6.4, 6.5]

11. Contractor completes work and submits final report [UC 7.4]
    - Reporting to Civil Rights

12. Resolved labor case
USE CASE: RECEIVE, REVIEW AND FORWARD LIST OF DBE / DVBEs (UC 7.1)

Brief Description
The District receives the list of approved DBE / DVBEs listed by the Contractor from the Office of Engineers through eBID at contract startup.

Actors
1. Office of Engineers (OE)
2. District staff
3. Resident Engineer (RE)

Systems / Interfaces
1. eBID – Provides DBE / DVBE Contractor data including certification and verifications.

 Preconditions
1. Contract is awarded (UC 1.1) with a DBE / DVBE requirement.
2. An RE is assigned (UC 1.2).

Flow of Events
1. Contractor supplies list of DBE / DVBEs with Contract.
2. Contract data is interfaced to the CMS from eBID (UC 1.1).
3. CMS stores DBE / DVBE data.
4. RE receives the list of approved DBE / DVBEs and list of Subcontractors.

Postconditions
1. RE has the list of approved DBE / DVBEs and list of Subcontractors in the CMS.
2. District has the list of approved DBE / DVBEs and list of Subcontractors.

Alternate Paths
1. The list of approved DBE / DVBEs has not been received prior to the preconstruction conference.
   a. RE contacts the district Labor Compliance officer to have it available before the conference.
   b. RE enters DBE / DVBE data in the CMS.

Business Rules
1. Need the ability to enter DBE / DVBE contractor data and requirements if DBE / DVBE contractor data is incomplete or missing.
2. Need the ability to version DBE / DVBE data and requirements throughout the life of the contract and maintain each version.

Outstanding Issues
1. eBID not implemented.

Questions
1. N/A
Forms

1. N/A
USE CASE: TRACK DBE / DVBE USE ON CONTRACT AND RESPOND TO COMPLIANCE ISSUES (UC 7.2)

Brief Description

The RE / Labor Compliance receives the information and compares the list of approved DBE / DVBEs listed by the Contractor received in the contract to the Subcontractors doing the work at the project site. The RE monitoring functions include review of payroll, Daily Diary and weekly statement of working days data against the contract. If Labor Compliance / RE determines that the approved DBE / DVBEs are not performing the work, the Contractor is notified in writing that they have violated a DBE / DVBE requirement.

Actors

1. Resident Engineer (RE)
2. Labor Compliance
3. Contractor

Systems / Interfaces

1. N/A

Preconditions

1. RE has the list of approved DBE / DVBEs and list of Subcontractors in the CMS (UC 7.1).
2. Payrolls are imported into the CMS from Labor Compliance process (UC 6.1).
3. Diaries are entered into the CMS (UC 3.2).

Flow of Events

1. Labor Compliance / RE reviews the list of approved Contractors and the DBE / DVBE Subcontractors furnished by the Contractor (CEM 1201) together with any changes throughout the life of the contract to determine if the Contractor is in compliance.
   a. CMS compares the payroll data against the CEM 1201 and contract.
   b. CMS compares the Diary against the CEM 1201 and contract.
2. Labor Compliance reviews the monthly Contractor interview data in the CMS for DBE / DVBE issues.
3. CMS notifies the RE of potential DBE / DVBE compliance issues:
   a. If unauthorized Contractors are performing work identified as DBE / DVBE work on the CEM 1201.
   b. An established percentage of an item with a DBE / DVBE commitment is complete and the DBE / DVBE has not been involved.
4. Labor Compliance enforces DBE / DVBE requirements as appropriate.
5. If the Contractor is in compliance, the RE continues to approve the Contractor’s periodic payments (UC 11.X). Labor Compliance takes no action against the Contractor.

Postconditions

1. The contract is monitored for compliance.
2. Data is available for HQ for DBE / DVBE usage.
Alternate Paths

1. (Step 5) If the Contractor is not in compliance, RE sends a letter notifying the Contractor of the violation.
   a. The Contractor has a specified number of days to respond before a second notice is sent to the Contractor.
   b. If the Contractor fails to respond to the written notices, RE submits a memorandum to the district labor office containing (UC 6.4):
      i. The apparent violation.
      ii. Any verbal action taken.
      iii. The Contractor’s subsequent action or inaction.
      iv. A copy of the written notice previously sent to the Contractor.
   b. District Labor Compliance reviews the issue and forwards to HQ Labor Compliance with recommendations following the Labor Compliance issue process (Track Compliance and Respond to Compliance Issues UC 6.4).
   c. HQ Labor Compliance reviews information and recommendations then notifies Civil Rights.
   d. When necessary, Civil Rights will investigate the violation and notify federal authorities as appropriate.

2. (Step 2) For Monthly DBE / DVBE Trucking Verifications, the Contractor submits FORM CEM – 2404 “Monthly DBE / DVBE Trucking Verification”, due before the 15th of each month.
   a. The form includes:
      i. The truck owner’s name.
      ii. The California identification (CA) number issued by the California Highway Patrol.
      iii. The truck owner’s DBE / DVBE certification number.
      iv. The company name and address.
      v. The commission or amount paid.
      vi. The date paid.
      vii. The lease arrangement.
   b. If the Contractor fails to submit the form, the RE must withhold LCV deductions for the missing documents.

Business Rules

1. DBE / DVBE compliance enforcement depends on current the legal environment and contract language.
2. CMS notifies the RE of potential DBE / DVBE compliance issues if unauthorized Contractors are performing work identified as DBE / DVBE work.
3. RE is notified after X number of days if no Contractor response is noted when a violation notice has been sent.
4. CMS allows RE to set a threshold on the amount of an item to be completed by the DBE / DVBE and at what point they should be notified if the DBE / DVBE is not doing the work.
Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
USE CASE: CONTRACTOR RESPONDS TO DBE / DVBE ISSUE (UC 7.3)

Brief Description

The Contractor receives the notice of potential compliance violation from the RE and must verify that a DBE / DVBE is performing the work. If the Contractor is unable to verify that the DBE / DVBE is performing the work, they may choose to substitute the DBE / DVBE. If the Contractor wishes to substitute the DBE / DVBE, they complete a substitution request form and submit it to the RE.

Once the RE receives the substitution request, they review the reasons for the substitution and decide whether or not to approve the substitution. If the RE rejects the substitution, the Contractor is required to use the approved DBE / DVBE. The Contractor and DBE / DVBE then continue to work until the end of the project. If the RE decides to accept the substitution request, they sign the substitution request form.

If the substitution request is approved, the substitution request form is forwarded to the Contractor. The Contractor then completes and submits a Subcontracting request to the RE.

Actors

1. Contractor – Subcontractor
2. Resident Engineer (RE)
3. District Labor Compliance
4. Headquarters Labor Compliance (HQ)

Systems / Interfaces

1. N/A

Preconditions

1. The contract is monitored for compliance (7.2).

Flow of Events

1. The Contractor may choose to request to substitute the DBE / DVBE due to pending violation or availability of the DBE / DVBE on the contract.
   b. CMS stores CEM 2401 data.
2. RE reviews the request for substitution.
3. RE notifies the current DBE / DVBE of the request to substitute.
4. DBE / DVBE does not object to substitution within 5 days.
5. RE approves request for substitution.
6. RE forwards request for substitution to the District Office for approval.
7. District Office approves the substitution request.
8. District office notifies the RE of the approval.
9. RE sends written notice of the decision to the Contractor.
10. RE sends a separate written notification to the Contractor regarding substitutions covered by the Subletting and Subcontracting Fair Practices Act.
11. Copies of all correspondence are maintained in the project file.
12. RE requests that the prime Contractor complete a revised FORM CEM 1201, “Subcontract Request” if applicable.
13. Contractor completes forms in the CMS.
14. RE reviews forms for completion.
15. RE approves forms.
16. RE notifies Contractor of approval.

Postconditions

1. Contractor responded to the notification of the DBE / DVBE violation.

Alternate Paths

1. (Step 3) The request for substitution is not complete.
   a. CMS edits the form for completion of the required fields.
   b. Contractor is notified of the issues with the request.
2. (Step 5) The request is denied by the RE.
   a. RE sends written notice of the decision to the Contractor.
   b. CMS maintains original DBE / DVBE.
3. (Step 4) The DBE / DVBE formally objects in writing to the substitution.
   a. RE schedules a hearing with the district construction deputy director or their appointed designee.
   b. The prime Contractor and the DBE / DVBE must attend the hearing.
   c. The request is adjudicated.
4. (Step 7) District denies the substitution request.
   a. District notifies the RE of the denial.
   b. RE sends written notice of the decision to the Contractor.
5. (Step 13) If the violation is not resolved and the Contractor does not substitute the DBE / DVBE, the RE places a withhold on the Contractor’s periodic payment.
6. (Step 7) Documents are not complete.
   a. RE contact the Contractor to correct form.
7. (Step 4) Contractor does not complete form.
   b. RE contacts the Contractor to request the forms be completed.
8. (Step 7) RE rejects the form.
   a. RE notifies the Contractor of the rejection of the substitution request.

Business Rules

1. The request must state the reason for the substitution.
2. The reason for the substitution must match authorized situations as outlined in the Standard Specifications.
3. The amount of work allocated to the DBE / DVBE being added to the contract must equal or exceed the original DBE / DVBE percentage of work.
   a. The same items of work are involved, or
   b. The dollar value of the commitment is equal to or greater than the original commitment.
4. Provide a certified DBE / DVBE or provide information for a good faith effort to find a DBE / DVBE.
5. An application does not constitute certification.
6. The original DBE / DVBE has five days to respond to notice of substitution.
7. Once the substitution is approved, CMS maintains data on the new DBE / DVBE commitment and the original DBE / DVBE commitment for historical purposes.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
USE CASE: CONTRACTOR COMPLETES WORK AND SUBMITS FINAL REPORT OF DBE / DVBE AND 1ST TIER SUBCONTRACTOR UTILIZATION (UC 7.4)

Brief Description
The Contractor, DBE / DVBEs and 1st tier Subcontractors continue to work at the project site and when the work is completed, the Contractor submits a final report of DBE / DVBE and 1st tier Subcontractor utilization. The RE receives the final report and forwards it to District Labor Compliance so they may review it.

Actors
1. Resident Engineer (RE)
2. Labor Compliance
3. Contractor

Systems / Interfaces

Preconditions
1. The contract has been monitored for compliance (UC 7.2).
2. Contract is accepted.

Flow of Events
1. Contractor completes forms in the CMS:
   a. CEM – 2402 (FandS) “Final Report – Utilization of Disadvantaged Business Enterprises (DBE / DVBE), First – Tier Subcontractors”, and
   b. CEM 2403 (FandS), Disadvantaged Business Enterprises (DBE / DVBE) Certification Status Change.”
2. The form is reviewed for accuracy and completeness. Review includes:
   a. CMS reviews the original dollar amount commitment against the final attainment shown on the final DBE / DVBE report.
   b. If there is a difference, the RE reviews the narrative description of why there are differences and determines if acceptable.
3. If acceptable, RE approves forms.
4. RE sends the data to Labor Compliance or HQ Construction.
5. Data is forwarded to Civil Rights for reporting and compliance analysis.

Postconditions
1. Completed Forms CEM 2402 (FandS) and CEM 2403 (FandS) are submitted.

Alternate Paths
1. (Step 2) Forms are not received.
   a. Contractor completes work on the project.
   b. RE is notified the forms have not been received.
      i. RE places a deduction for non-compliance on the contract after acceptance (currently $10,000).
   c. Once documents are complete the RE releases the deduction.
      i. If the documents are not completed the RE will complete the report and release the deduction.
2. (Step 3) The forms are not complete.
3. CMS does not allow the forms to be submitted.
4. (Step 4) The original dollar amount commitment with the final attainment shown on the final DBE / DVBE report, dollar amounts on the DBE / DVBE report reflect the actual amount paid via the payrolls received and the differences are not acceptably explained in the narrative.
   a. Withholding is placed on the contract funds for the amount of the shortfall.
   b. The Contractor begins the dispute resolution process.

Business Rules
1. RE has the ability to complete forms for the Contractor.
2. Forms are required for all contracts.

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. N/A
A.8. **TEST PRODUCTS AND MATERIALS**

The functions of Test Products and Materials and Quality Control / Quality Assurance have been combined into one section. This functional area includes the following use cases:

- Maintain List of Materials / Items to be Used (8.1)
- Enter / Update / Approve Test Plan (8.2)
- Verify Resource Certification (8.3)
- Assign Tests / Inspections to Resources (8.4)
- Perform Tests and Inspections / Record Results / Notification (8.5)
- Close Out Material / Item (8.6)

The use case flow on the following page depicts the process flow of the use cases within the functional area:
USE CASE: MAINTAIN LIST OF MATERIALS / ITEMS TO BE USED (8.1)

Brief Description
The Contract has been awarded and the Contractor prepares a list of materials / items to be used on the job. The Contractor updates the list of material / items from eBID with the source and other information and adds materials / items as necessary and updates them with the source and other information. The list is approved by the various stakeholders.

Actors
1. Resident Engineer (RE) / Structures Rep (SR)
2. Assistant Resident Engineer (Other authorized party, Office Engineer)
3. Contractor
4. Design / Bid
5. METS / District Labs
6. Quality Control / Quality Assurance (QC / QA) Staff

Systems / Interfaces
1. CMS to and from eBID (Items, Specs).

Pre-conditions
1. The contract has been awarded or the CCO Approved.
2. The list of materials / items to be used is populated from eBID data.

Flow of Events
1. Contractor updates list of materials / items based on bid design.
   a. Items can be subdivided by template (i.e. CMS has template of materials that are needed for a paving item).
   b. Items can be subdivided per RE / SR discretion.
2. Contractor modifies list of materials / items.
   a. Adds sources.
   b. Updates list of materials / items based on latest information since contract award.
3. RE / SR reviews and accepts list of list of materials / items.
4. Notification is sent to METS / IA / Structures and other stakeholders.

Post-conditions
1. List of materials / items is approved and maintained in CMS.
2. Notifications to appropriate stakeholders are made.

Alternate Paths
1. N/A

Business Rules
1. Materials are related to items (1: Many).
   a. Materials required for items are stored in CMS as a template.
   b. Materials may have preliminary test / inspection / certification requirements.
2. Items are related to operations (categorical groups of items) (1: Many).
3. Contractor updates the list of materials / items with the following types of information;
a. Plant  
b. Source certification results  
c. Buy America status  
d. Buy Foreign waivers

4. Contractor can add to or update the list of materials / items.
5. All list of materials / items updates send notifications to stakeholders.
6. Buy America data required for FHWA forms are collected, see 23 CFR 635.410(b) for exact regulations.
7. Materials are flagged for Materials on Hand handling.
8. List of materials / items must be approved by stakeholders.
9. Updates can be submitted for approval.
10. Once list of materials / items is approved, all updates must be approved before incorporation in Test Plan.
11. Once list of materials / items is approved, all updates must generate notifications to stakeholders.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM-3101
USE CASE: ENTER / UPDATE / APPROVE TEST PLAN (8.2)

Brief Description
This process begins when the materials for a job have been identified. The Contractor and RE / SR develop a test plan for the job with input from the testing authorities.

Actors
1. Resident Engineer (RE) / Structures Representative (SR)
2. Assistant Resident Engineer (Other authorized party, Office Engineer)
3. Contractor
4. METS / District Labs
5. Independent Assurance (IA)
6. QC / QA Staff
7. District Specialists
8. Design / Bid

Systems / Interfaces
1. eBID
2. IA

Preconditions
1. List of materials / items is created and updated.
2. Test / Inspection / Equipment resources are loaded and available in CMS.

Flow of Events
1. The materials to be furnished for inspection are indicated.
2. The materials to be inspected at the job site are indicated.
3. The equipment to be certified is indicated.
4. The material / item testing frequency / method / sequencing from Standard Specifications is reviewed by the RE / SR and modified based on Special Provisions and / or RE / SR discretion.
5. RE / SR justifies modifications to standard frequency modification.
6. RE / SR notifies stakeholders that Test Plan is available for review / comments.

Post-conditions
1. Test Plan is created and maintained in CMS.
2. Notifications to appropriate stakeholders are made.

Alternate Paths
1. N/A

Business Rules
1. Materials testing standards per QC / QA Plan (if necessary), Construction Manual, Standard Specifications, and Special Provisions are used to create the default test plan (including preliminary tests).
2. Tests have varying levels of severity (for example):
   a. Mission Critical
b. Desirable
  c. Optional

3. RE / SR can modify test plan based on discretion (for example):
   a. Type
   b. Frequency
   c. Method

4. RE / SR annotates deviations from the standard test plan.

5. The Test Plan Line items can be created which do not relate to materials / items on the contract.

6. The Test Plan will at least incorporate, but will not be limited to, the following:
   a. Source Testing / Inspection
   b. Plant Testing / Inspection
   c. Mix Design Testing / Inspection
   d. Fabrication Testing / Inspection
   e. Preliminary Testing / Inspection
   f. Acceptance Testing / Inspection
   g. QC / QA Testing / Inspection

7. Tests may have prerequisite / preliminary tests.

8. Test Plan has workflow functionality.

9. Test Plan has expected results and / or Department Standards to measure against.

10. Test Plan can accept comments.

11. Test Plan to be approved by stakeholders.

12. Updates can be submitted for approval.

13. Once Test Plan is approved, all updates must be approved before incorporation in the Test Plan.

14. Once Test Plan is approved, all updates must generate notifications to stakeholders.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. CEM-3101
2. TL-608
3. TL-28
4. AF-06
5. Quality Control Inspection Plan – Plant Operations
6. Quality Control Inspection Plan – Street Operations
7. Quality Control Sampling and Testing Plan
8. Process Control Sampling and Testing Plan
9. Quality Control Random Sample Plan
10. Construction Manual Chapters 4, 6
12. Standard Specifications
USE CASE: VERIFY RESOURCE CERTIFICATION (8.3)

Brief Description
The RE / SR verifies the certification of testers / inspectors, the calibration of equipment, and the accreditation of labs using information from the IA system.

For the purpose of this use case, resource = staff, inspector, equipment, or lab

Actors
1. Resident Engineer or Structures Engineer (RE / SR)
2. Contractor
3. Materials Engineering and Testing Services (METS)
4. Independent Assurance (IA)
5. Quality Control / Quality Assurance (QC / QA) Staff

Systems / Interfaces
1. IA

Preconditions
1. Resources are defined in CMS.
2. Test Plan is created.
3. Required Certifications are known.
4. Required Equipment is identified.

Flow of Events
1. RE / SR checks for available staff resource to support Test Plan.
2. RE / SR verifies the available resource is Certified for the specific tests / inspections.
3. RE / SR verifies that required equipment is Certified.

Post-conditions
1. Certified resources are verified for their specific test(s) / inspection(s).

Alternate Paths
1. N/A

Business Rules
1. The resources to show as Certified or Non Certified.
2. The resources to be filtered by the type of tests / inspections they can perform.

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. AF-02
2. AF-03
3. AF-04
4. AF-05
5. TL-0113
6. TL-0111
USE CASE: ASSIGN TESTS / INSPECTIONS TO RESOURCES (8.4)

Brief Description
Test and / or inspections are assigned to staff to perform the specific test and / or inspection.

For the purpose of this use case, resource = staff, inspector, equipment, or lab

Actors
1. Materials Engineering and Testing Services (METS) / District Lab / Field Lab
2. Resident Engineer or Structures Engineer (RE / SR)
3. Contractor
4. Quality Control / Quality Assurance (QC / QA) Staff

Systems / Interfaces
1. CMS Resource Management

Preconditions
2. Resource is Certified.

Flow of Events
1. Select the test / inspection.
2. RE / SR assigns / schedules the resources to support the Test Plan.
3. Resources notified of responsibilities.
4. Stakeholders notified of assigned resources.

Post-conditions
1. Tests / Inspections are assigned to resources.
2. Notifications to appropriate stakeholders are made.

Alternate Paths
1. If resources are not available to support Tests / Inspections, additional resources are certified / accredited and added to the Test Plan.

Business Rules
1. Resources can only be assigned to the tests / inspections they are certified to perform.
2. Resources can be assigned to multiple tests / inspections.
3. Resources can be added and assigned to the test / inspection prior to being included in Resource Management.
4. Resource information to be tracked by a Unique Resource Identifier.
5. Resources and other stakeholders to be notified of assignment.

Outstanding Issues
1. N/A

Questions
1. N/A
Forms

1. AF-01
2. TL-0101
USE CASE: PERFORM TESTS AND INSPECTIONS / RECORD RESULTS / NOTIFICATION (8.5)

Brief Description

The tests / inspections are performed and the results are recorded and stakeholders are notified of the status of tests per test plan. Notifications may be created for deficiencies in test / inspection results or to notify users that a required test was not performed.

Actors

1. Materials Engineering and Testing Services (METS) / District Lab / Field Lab
2. Resident Engineer or Structures Engineer (RE / SR)
3. Contractor
4. Quality Control / Quality Assurance (QC / QA) Staff

Systems / Interfaces

1. N/A

Preconditions

1. Tests / Inspections are assigned to resources.

Flow of Events

1. Test / Inspection is performed.
2. Results are recorded.
3. Results are compared against standard.
4. Exceptions are managed by RE / SR.
   a. Rework
   b. Continue
   c. Reject

Post-conditions

1. Test results are verified and stored in CMS.
2. Notifications to appropriate stakeholders are made including approval for payment when applicable.

Alternate Paths

1. N/A

Business Rules

1. CMS compares test results with acceptable standards.
2. RE / SR manages exceptions.
3. System to record results of multiple tests per material / item.
4. Ability to attach and reference backup documentation to test results.
5. Ability to record comments on test results.
7. Test calculations to be performed specifically in CMS (if operationally prudent):
   a. Category 35 – Asphalt Concrete
   i. Nuclear - tested by field tester
ii. Maximum density - tested by someone other than field tester
iii. Percent oil - tested by someone other than field tester
iv. Stability - tested by someone other than field tester
v. Voids- tested by someone other than field tester
vi. Gradation- tested by field tester or other
vii. Sand equivalent (SE) - tested by field tester or other

b. Category 36 – Pavement Only
   i. Unit weight- tested by field tester or other
   ii. Air entrainment- tested by field tester or other
   iii. Penetration- tested by field tester or other
   iv. Flexure strength- tested by field tester or other
   v. Cylinders - tested by someone other than field tester
   vi. Gradation - tested by field tester or other
   vii. Sand Equivalent (SE)- tested by field tester or other

c. Category 37 - Initial and Acceptance Tests
   i. Nuclear Reletive Compaction
   ii. Gradation
   iii. Sand equivalent (SE)
   iv. R-Value

d. Category 43 - Portland Cement Concrete
   i. Unit weight
   ii. Air entrainment
   iii. Penetration
   iv. Cylinders
   v. Gradation
   vi. Sand equivalent (SE)

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. TL-38
2. CEM-4101
3. CEM-4102
USE CASE: CLOSE OUT MATERIAL / ITEM (8.6)

Brief Description
When the execution of the test plan for a material / item is complete, the user indicates the final status of the material / item for approval / payment. Note that execution of the test plan does not necessarily mean that a material / item ultimately passed or is approved.

Actors
1. Resident Engineer or Structures Engineer (RE / SR)
2. Contractor
3. Materials Engineering and Testing Services (METS) / District Lab

Systems / Interfaces
1. N/A

Preconditions
1. Test Plan is fully executed.

Flow of Events
1. RE / SR reviews material / item actions to date.

Post-conditions
1. Material / item updated with final statuses.
2. Notifications to appropriate stakeholders are made.

Alternate Paths
1. N/A

Business Rules
1. Material / item to be updated with Approval / Payment Status.

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. N/A
A.9. **QUALITY CONTROL / QUALITY ASSURANCE (QC / QA)**

*See Test Products and Materials*
A.10. CONTRACT ITEM QUANTITY CALCULATION

This functional area is a sub component of the larger Progress Pay processes which includes:

- Contract Item Quantity Calculation
- Payment Estimate
- Item Adjustment
- Extra Work Bill (EWB)

Contract Item Quantity includes the following use cases:

- Item Quantity Calculation (UC 10.1)
- Materials on Hand Calculation (UC 10.2)

The use case flow on the following page depicts the process flow of the use cases within Progress Pay the functional area:
USE CASE: ITEM QUANTITY CALCULATION (UC 10.1)

Brief Description

This process consists of gathering data and observations from multiple sources to facilitate proper payment for Contract Item Work.

Actors

1. Resident Engineer (RE)
2. Field Office Engineer
3. Assistant Resident Engineer (ARE)
4. Contractor
5. Subcontractor
6. Structures

Systems / Interfaces

1. IFMS to and from CMS (Funds Mgmt data).
2. eBID to and from CMS.
3. Document Retrieval System (DRS) to and from CMS.

Preconditions

1. Quantity figure from Field OE (from eBID) in the CMS.
2. Funding allotment approval in CMS (UC 2.7).
3. Diary data in the CMS in which the Inspector makes measurement / observation for payment (days, lbs, other).
4. Item payment requirements are specified in the Special Provisions (including percentages).
5. Work is completed and authorized for payment (approved per Testing Process).
6. Informal Contractor invoice for payment is submitted (note: this would require a policy change and may not be a viable option).
7. CCO Process (UC 5.x) is complete (i.e. CCO Approved) for extra work items marked / authorized for payment.

Flow of Events

1. Validate measurements (revise as necessary).
2. Quantity to be paid is determined through reconciliation process of measurement to Diary data by RE.
3. RE or delegate determines actual payment.

Postconditions

1. Item Quantity Calculation data is in the CMS ready to facilitate the Payment Estimate Process.

Alternate Paths

1. N/A
Business Rules

1. Over / under run items identified automatically (against Contract Bid Item Quantities and RE “Best Guess” Item Quantities).
2. The system to identify duplicate payments of items based on Work Breakdown Structure (WBS) or other measure as identified.
3. The system to associate WBS location with Quantity Calculation performed.
4. Track status of Quantity Calculation.
5. Calculate item quantities and other item totals for all transaction items by payment method.
6. Ability to enter a list of valid item quantity calculations for a contract (i.e. template creation / use).
7. Track overpayment of final pay items, which could generate a CCO.
8. Track quantity calculation sheets (Q-sheets) by item work vs. CCO work and by payment method.
9. Track work paid as item work to avoid paying for that item also through a CCO.
10. Track how the calculation was determined (i.e. supporting calculations).
11. Ability to reference and track source documents / related documents (i.e. for audit trail).
12. See Federal Regulations regarding approval.
13. Flexible workflow definition of approval process (i.e. CE approves this one, but not this one).
14. Ability to track / associate Q-sheets with existing data (i.e. Diary data material releases, test data).
15. Ability to attach documents to Q-sheets.
16. Ability to track / deduct units representing any “lost value” from the current monthly estimate, if any work or material on hand paid for on a previous monthly estimate loses value through loss, damage, or failure to function. (see CM 3-907A)

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM-6004 Contract Transaction items (see NOTE below)

NOTE: The form 6004 above should be used for data element reference and field edit reference only. This form is used to accommodate the existing system for batch processing of item quantities for payment.
USE CASE: MATERIALS ON HAND CALCULATION (UC 10.2)

Brief Description
This use case represents the process of calculating payment to the Contractor for materials purchased and materials used on the contract. This process involves testing of materials, through the Materials Engineering and Testing Services (METS), as well as inspecting the materials for many factors, such as establishing the fact of purchase, proper storage, acceptability, and accessibility.

Actors
1. Resident Engineer (RE)
2. Assistant Resident Engineer (ARE)
3. Contractor
4. Materials Engineering and Testing Services

Systems / Interfaces
1. Document Retrieval System (DRS) to and from CMS

Preconditions
1. Tests performed and users notified of pass / fail results (UC 8.5).
2. Diary data in the CMS.
   a. Specifically data pertaining to Materials on Hand (MOH) entries / changes.

Flow of Events
1. Request for payment of MOH is submitted by the Contractor.
2. Authorizations requested by RE and received
   a. Material invoices received.
   b. Certificates of compliance received and confirmed from METS.
3. Inspector validates invoices and certificates and verifies the information and completes the calculations of MOH payment in the CMS.
4. RE or delegate determines actual payment based on review / approval.

Postconditions
1. MOH data is in the CMS ready for payment. To facilitate the Payment Estimate process (UC 11.2).

Alternate Paths
1. If it is not practical for the RE or ARE to verify quantity, quality, location and proper storage of a material, a copy of the FORM CEM-5101 is sent to METS or METS is notified of data available in the CMS.
   a. Upon receipt of FORM CEM-5101 / Notification:
      i. METS will notify the appropriate inspection office or offices immediately.
      ii. A METS representative will notify the resident engineer directly by use of Form TL-0649, “Inspector’s Report of Material on Hand,” or TL-6037, “Fabrication Progress Report,” (OR online notification and Online data Screen) that the material has been inspected and that it is in acceptable condition and properly stored.
iii. METS will use Form TL-6037, for structural steel, precast prestressed concrete members, or sign structures. For other products, METS will use Form TL-0649 (or online data screen – See Forms section for data reference).

iv. METS may also indicate on its correspondence, the percent complete of shop fabrication on various structural components. This figure is given for the purpose of reporting progress on the affected items. This figure is not to be used to increase payment for materials on hand during fabrication.

**Business Rules**

*See CM 3-907D Materials on Hand for reference*

1. The Contractor must initiate payment by submitting FORM CEM-5101, “Request for Payment for MOH” or submit the equivalent data via an Online System Request.
   a. The Contractor must submit a request one week before the end of the estimate period for each estimate.

2. User to have the ability to mark MOH items as approved / actual, including establishing the fact of purchase, proper storage, acceptability, and accessibility.
   a. The Contractor must provide evidence of purchase (MOH Invoices).
   b. Must not pay for materials accepted unless a certificate of compliance or Form TL-0029, “Report of Inspection of Material” has been received.
   c. Withhold payment for materials on hand until the materials are properly stored.
   d. Each request must represent the current status of materials on hand at the time the request is made. Do not honor a request if it does not represent the actual amount on hand.
   e. The system must have the ability to reduce the payment for materials on hand by the amount of any discount afforded the Contractor on the MOH being paid for on this estimate.
   f. Ability to track / deduct units representing the lost value from the current monthly estimate, if any work OR material on hand paid for on a previous monthly estimate loses value through loss, damage, or failure to function.

3. The system needs to allow the RE to approve items without METS testing results, in the event that METS is not able to respond in the allotted timeframe, for payment of MOH to be included on the payment estimate.

4. The system must ensure that the maximum payment for MOH should be such that, when the estimated placing and other remaining costs of the work are added, the contract price is not exceeded.
   a. The purpose of this is to prevent payment of more than the contract price for the materials and to leave sufficient funds in the item to complete the work.

5. The system must have the ability to track materials charged on the request, to uniquely identified invoice provided by the Contractor as proof of purchase. This is also to track the invoice across other contracts with the same Contractor.
   a. The system must also track the use of that invoice as proof of payment for given quantities. For example, an invoice with a unique number of 1 submitted show 200 gallons of paint purchased, but only 20 are used for this project. The system would need to track that 20 of 200 for invoice 1 was used, so the 180 remaining on invoice 1 can be used for later proof of payment.
6. The ability to attach documents / make reference to MOH Payment Request section of 
CMS for reference, such as the MOH Invoices from the Contractor and the Certificates of 
Compliance from METS.
   a. The system must allow for a Q-sheet and payment estimate to reference each other 
   uniquely.
7. The system must disallow the creation of Q-sheet for an item if the item has been deleted 
(i.e. the item has been deleted by a CCO).

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM-5101, “Request for Payment for Materials on Hand.”
4. TL-6037, “Fabrication Progress Report”
5. TL-6037 (For Structure Steel)
A.11. PAYMENT ESTIMATE

This functional area is a sub component of the larger Progress Pay processes which includes:

- Contract Item Quantity Calculation
- Payment Estimate
- Item Adjustment
- Extra Work Bill (EWB)

Payment Estimate includes the following use cases:

- Payment Estimate Request (Progress Pay, Minor B, and Emergency Contract Payments) (UC 11.1)
- Payment Estimate Request (After Contract Acceptance) (UC 11.2)
- District Office Reviews / Approves / Routes Payment Estimate (UC 11.3)
- Headquarters Reviews / Approves / Routes Payment Estimate (UC 11.4)
- Accounting Processes Payments (UC 11.4)
- Generate and Distribute Payments (UC 11.5)

The use case flow on the following page depicts the process flow of the use cases within Progress Pay the functional area:
USE CASE: PAYMENT ESTIMATE REQUEST - PROGRESS PAY, MINOR B, AND EMERGENCY CONTRACT PAYMENTS (UC 11.1)

Brief Description

The Resident Engineer (RE) has completed the inputs necessary to facilitate an accurate Payment Estimate, such as completing the Quantity Calculations, completing / verifying Lump Sum or Agreed Price Extra Work Billings data, verified / approved Force Account Extra Work Billings / Emergency and Minor B Invoices, and verified Materials On Hand (MOH) data. The Payment Estimate Request process is initiated and the request is routed to a designated approver (i.e. Sr. Construction Engineer) for review, approval, and further processing.

Actors

1. Resident Engineer (RE)
2. Assistant Resident Engineer (ARE), Other authorized party, Office Engineer
3. Contractor (Minor B and Emergency Contracts)
4. Office Assistants
5. Senior Construction Engineer (SCE)

Systems / Interfaces

1. CMS to and from IFMS – Labor Compliance Information (Currently in PETS)

Preconditions

1. Contract Item Quantity Calculation Complete (UC 10.1).
2. RE or ARE Diary data in the CMS (UC 3.0).
4. CCO data in the CMS.
5. All Labor Compliance Violations (LCV), deductions, Materials on Hand calculations, levies, and stop notices data in the CMS.
6. If applicable, Contractor has submitted request for release of “95% Complete” retention.
7. Invoices have been received from the Contractor for entering against Minor B and Emergency Contracts.

Flow of Events

1. The use case begins with the RE verifying (or completing) the data in the CMS necessary to complete the Payment Estimate Request (i.e. Qty Calculation data).
2. The RE enters (where applicable) / reviews / approves the following deductions:
   a. Administrative
   b. Equal Employment Opportunity Deductions
   c. Labor Compliance Violations (Division of Accounting), LC Deductions (District Office)
   d. Liquidated Damages
   e. Other outstanding documents
   f. Overbid items
   g. Unsatisfactory progress
3. The deduction information is approved / modified / rejected in the CMS by the RE.
4. The RE initiates the Payment Estimate Request using data in the CMS:
a. Weekly Statement of Working Days (Part of Diary)
b. MOH Calculations
c. Item Quantity Calculations
d. Outstanding EWBs (Lump Sum and Agreed Price EWBs - Part of Diary)
e. Outstanding EWBs (Force Account – data from Contractor submittals)
f. Project Initiation and Update forms (if the project is suspended for some reason)
g. Statements of Compliance (labor, other withholds, or stop notices)
h. Retention release trigger (95% Complete)
i. Deduction reversal trigger (manual or rule related)

5. The RE routes the Estimate Request to the Sr. Construction Engineer (through a CMS initiated notification process) and to the District Office for review, approval and further processing.

6. CMS edits are applied and the estimate data is validated.

Postconditions

1. Payment Estimate Request data routed to the approver (Sr. Construction Engineer or delegate) for review and approval.
2. Item under / over run tracking data updated and identified in the CMS per contingency balance, bid item quantity, RE estimated item quantity, in progress or approved CCOs, actual cost, etc.

Alternate Paths

1. If a Minor B or Emergency Contract, then
   j. The use case begins with the Contractor submitting invoices for Labor, Materials, and Equipment consistent with Force Account Payments for Extra Work Business Rules found in CM Chapter 3, Section 9, Measurement and Payment as well as (UC 13.0).

2. Invoices entered in the CMS for balance tracking.
3. If a Negative Estimate is submitted, then
   k. CMS / IFMS manages a receivable balance against future payables

Business Rules

1. See CM 3-904 Payment for Extra Work, CM 3-907 Partial Payments, and Use Case 13.x for Business Rules associated with Extra Work Bills and other Force Account Payments, such as Emergency and Minor B Contracts.
2. Each Progress Payment Estimate must include payment for work completed up to and including the 20th day of the month. (The day of the month can potentially change).
3. All documents pertaining to the estimate (including Extra Work Bills) must be available to the Sr. Office Engineer or approver no later than the first working day after the 20th of the month (or other district designated day).
4. Ability to break out structures vs. non structures work items (for look up and reporting purposes).
5. Automatically calculate retentions / release of retentions.
   a. RE to have approval / rejection rights regarding retention release.
   b. Once the contract is almost done (i.e. 95 % done), certain retentions can be released pending RE approval.
c. Needed interface / automated notification process for escrow account funds release, currently through Bank of America. Currently IFMS interface requirement with BofA.
d. Ability to handle contract progress calculations and take deductions / release deductions accordingly (see CM 3-909(A) and 3-909(B)).

6. Ability for the RE or Approver to review / approve deductions on the Estimate that have been entered from multiple sources (Labor Compliance, District, Accounting, or RE).
7. Ability to assign / distribute and track contingency balances against items (i.e. anticipated changes” on Payment Estimate).
8. Support deductions for out of state inspections.
9. Until the payment run has been completed (data sent to SCO for payment), estimate can be rejected, modified and/or re-run.
10. All lump sum items are verified as one hundred percent complete before routing for payment approval to the Senior Construction Engineer if the payment is the last payment for the item.
11. Ability to manage negative estimates as receivable and retain receivable against future payables.

Progress Payment
See CM 3-9 Measurement and Payment for Reference

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. CEM-5101, “Request for Payment for Materials on Hand”
2. CEM-6001, “Project Record – Estimate Request”
USE CASE: PAYMENT ESTIMATE REQUEST - AFTER CONTRACT ACCEPTANCE (UC 11.2)

Brief Description
This process includes any Payment Estimate Request after the contract has been “accepted”. Any estimate covering a payment after contract acceptance is identified either as “after acceptance,” “semifinal,” or “final.” Section 5-4, “Disputes,” of the Construction Manual lists the timeline for completing payment steps after the acceptance process. See (UC 4.1), for more on the Close Out procedure of Contract Acceptance. Contract Acceptance is defined as the phase when a contract is considered complete by both the Department of Transportation (Department) and the Contractor and final payment (or preceding payments after acceptance) to close the contract can be processed.

Actors
1. Resident Engineer (RE)
2. Assistant Resident Engineer (ARE), Other authorized party, Office Engineer
3. Contractor (Minor B and Emergency Contracts)
4. Office Assistants
5. Sr. Construction Engineer (SCE)
6. Headquarters (HQ) Construction
7. Labor Compliance

Systems / Interfaces
1. CMS
2. IFMS – Labor Compliance Information (Currently in PETS)

Preconditions
1. Contract Item Quantity / MOH Calculation (UC 10.0):
   a. RE or ARE Daily Diary data in the CMS (UC 3.0).
   b. Extra Work Bill (EWB) data in the CMS (UC 13.0).
   c. CCO data in the CMS.
   d. Labor Compliance Violations (LCV’s), liens, levies, and stop notices data in the CMS.
2. Invoice from the Contractor.
3. Contract is accepted.
4. All existing (i.e. submitted / outstanding) EWBs are accepted or rejected.

Flow of Events
1. The use case begins with the RE verifying (or entering) the data in the CMS necessary to complete the Payment Estimate Request, including, but not limited to Quantity Calculations and Materials on Hand data.
2. The RE reviews or approves any of the following deductions:
   a) Administrative
   b) Equal Employment Opportunity Deductions
   c) Labor Compliance (LC) Violations (Accounting), LC Deductions (District)
   d) Liquidated Damages
   e) Other Outstanding Documents
f) Overbid items  
g) Unsatisfactory progress

3. The deduction information is then entered into the CMS.

4. The RE initiates the Payment Estimate Request using data in the CMS from:
   a) The Weekly Statement of Working Days (Part of Diary)  
   b) Quantity Calculations and Materials on Hand data (Part of Diary) 
   c) Outstanding EWBs (Lump Sum and Agreed Price EWBs - Part of Diary)  
   d) Outstanding EWBs (Force Account – Data from Contractor submittals)  
   e) Statements of Compliance (labor, other withholds, or stop notices)  
   f) Release of retentions (over bid items, unsatisfactory progress, 10% for State funded projects)

5. The RE routes the Estimate Request to Sr. Construction Engineer and to D.O. (through a CMS initiated notification process) for review, approval and further routing.

6. If the Proposed Final Estimate (PFE) is approved by the Contractor and money is owed (vs. negative balance due to withholds, liens, levies, etc.), payment is generated to the Contractor.

Postconditions

1. Payment Estimate Request data routed to the approver (Sr. Construction Engineer or delegate) for review and approval.
2. Item under / over run tracking data updated and identified in the CMS per contingency balance, bid item quantity, RE estimated item quantity, in progress or approved CCOs, etc.

Alternate Paths

1. If a Negative Estimate is submitted, then
   a. CMS / IFMS manages a receivable balance against future payables
2. Notification to HQ Construction:
   a. Approval / Rejection by HQ Construction
   b. Back to RE for changes with comments

Business Rules

2. Ability to break out structures vs. non structures items
3. If negative after acceptance, estimate system must notify HQ Construction
4. Only generate a receivable / invoice if it’s the Final Estimate and a negative balance remains. For example, if other after acceptance estimates (other than the Final Estimate) result in a remaining negative balance due Caltrans from the Contractor, the system will retain a receivable balance against potential future payments.
5. Users need ability to automatically release retentions within 15 - 30 days (or other designated number of days) after contract acceptance. This applies to only 10% on State projects and Minor B contracts.
   a. When retentions are released, this data is to be made available online or notification made to Contractor regarding the release of retentions.
6. Ability to set the number of days for retention release during life of project.
7. Until payment run has been completed (sent to SCO for Warrant creation), estimate can be rejected, modified and re-run.
8. All lump sum items verified as one hundred percent complete before routing for payment approval by Structures Construction Engineer
9. Ability to release a portion of the payment.

**Progress Estimate After Contract Acceptance (CM 3-911)**

A progress payment after acceptance must adhere to Section 9-1.07A, “Payment Prior to Proposed Final Estimate,” of the Standard Specifications. The purpose of this type of progress payment is to release all money due the Contractor that exceeds any amounts retained under the contract. When determining amounts to be paid or deducted for this type of estimate, the following applies:

1. Include payment for the following:
   a. Any work completed since the previous estimate.
   b. Any errors that may have been discovered and corrected.
   c. Any labor compliance deficiencies that have been cleared.
2. Include payment for any overbids on maximum value items, including the mobilization item. No additional action required for this step.
3. When delinquent or inadequate payrolls exist, make a deduction from the payment. The deduction will be in the same amount as for any progress estimate. See Section 8-1, “Labor Compliance,” of this document.
4. When the Contractor has failed to correct deficiencies in its equal employment opportunity program, make a deduction from the payment. These deficiencies include failure to submit the following:
   c. FORM CEM-4401 – Solid waste, due 5 days after project acceptance.

The deductions will be in the same amount for any progress estimate. See Section 8-2, “Equal Employment Opportunity,” and Section 8-3, “Disadvantaged Business,” of this document.

5. To cover any outstanding documents required under this contract, make a deduction from the payment. These outstanding documents include the following:
   a. Reduced prints of working drawings.
   b. Outstanding payrolls that are not yet delinquent.
   d. Any information upon which to base the Proposed Final Estimate, such as adjustments of contract unit prices.
   e. The deduction, regardless of the number of outstanding items, will be the smaller of 5 percent of the “Subtotal Amount Earned without Mobilization” or $10,000.

In addition to the steps listed above for determining amounts to be paid or deducted for a progress estimate after contract acceptance, the RE must also do the following:
1. Notify the district of what deductions are applicable.
2. Compound the deductions when a combination of the following situations, which were outlined above, occur:
   a. The Contractor has delinquent or inadequate payrolls.
   b. The Contractor failed to correct deficiencies in its Equal Employment Opportunity program.
   c. The Contractor failed to honor requirements related to disadvantaged business enterprises.
3. Also compound permanent deductions. Permanent deductions include items such as material royalties, railroad flagging charges, material testing, out-of specification material, or restaking charges. Also considered permanent are deductions for anticipated liquidated damages. When warranted, anticipated liquidated damages can be made on progress estimates. However, anticipated liquidated deductions will need to be made permanent on the after-acceptance estimate. To do so, release anticipated liquidated damages; then take actual liquidated damages on the after-acceptance estimate.
4. When making deductions for outstanding items, the RE advises the Contractor in writing of the specific missing items and that they will result in a delay of final payment.
5. Before processing an after-acceptance estimate, the RE prepares the following two reports, “Status of CCO,” and “CCO Master Listing.” These reports show any adjustment of compensation credit or deferred time not yet taken.

Semi-Final Estimate
See CM 3-913 Semifinal Estimate

Proposed Final and Final Estimate
See CM 3-912 Proposed Final Estimate (PFE)
See CM 3-914 Final Estimate
See CM 5-405A (As Part of the Claims Resolution Process)

Issue Proposed Final Estimate—Target Day 40
1. The district must issue a Proposed Final Estimate within 40 days after contract acceptance. Issue the Proposed Final Estimate with the understanding that the estimate represents the final payment to the Contractor. To ensure compliance with this target date, the resident engineer’s supervisor must make a written request to the district progress payment section that the Proposed Final Estimate be processed for the contract. Would like this process to be online, but may require policy change to due to “written request” language.
2. Issuance of the Proposed Final Estimate should not be postponed while waiting for additional information from the Contractor because delays might later be attributed to Caltrans. Ensure that all quantity calculations and adjustments are completed in time to process the Proposed Final Estimate within the target date. Send the Proposed Final Estimate by certified mail with return receipt requested since the Contractor’s receipt of the Proposed Final Estimate must be evidenced by postal receipt. (Probably cannot be automated within the system, due to policy of evidence of postal receipt)
3. Currently require wet signature on PFE

CM 5-405B
Proposed Final Estimate Returned—Target Day 70
The Contractor has 30 days after receiving the Proposed Final Estimate to review, sign, and respond either with or without a written statement of claims. Document the receipt of the Contractor’s response by postal receipt or written receipt if hand delivered.

No further action is required other than processing the Final Estimate if the Contractor returns the Proposed Final Estimate indicating acceptance, or the Contractor does not return the Proposed Final Estimate within the required 30 day period. If claims are submitted after the 30-day period, the entire submittal must be returned to the Contractor with a cover letter stating that Caltrans will not address the claims because they were not submitted in accordance with the contract requirements, and the Final Estimate must be processed. If the Contractor returns the Proposed Final Estimate with a written statement of claims within the 30-day period, district construction must send a copy of the Contractor’s claim package to the resident engineer, construction engineer, and district construction claims engineer.

1. If PFE has been created, EWB submission by the Contractor is no longer accepted.
2. If PFE is approved by the Contractor and money is owed, payment is generated with no need to process an additional estimate (currently called “Final Estimate”).
   a. PFE can be an online estimate that can be reviewed / updated / approved like other estimates.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. CEM-5101, “Request for Payment for Materials on Hand”
2. CEM-6001, “Project Record, Estimate Request”
USE CASE: DESIGNATED PERSONNEL REVIEWS / APPROVES / ROUTES PAYMENT ESTIMATE (UC 11.3)

Brief Description

The Sr. Constructor Engineer reviews / approves or rejects with comments and routes the Payment Estimate Request to HQ (as applicable).

Actors

1. Resident Engineer (RE)
2. Senior Construction Engineer (SCE) or approver(s)

Systems / Interfaces

1. CMS to and from IFMS - Labor Compliance Violation and other withhold data

Preconditions

1. Payment Estimate Request (UC 11.1) or (UC 11.2) completed.
2. Checklist of required submittals to be completed - established during Contract Start-up for deductions.

Flow of Events

1. The use case begins with the approver(s) receiving notification of the Payment Estimate Request from the CMS.
2. The approver(s) verifies Payment Estimate Request in the CMS.
3. The approver(s) verifies/enters in the CMS any deductions not already entered by either the RE or the Division of Accounting.
4. If applicable, the Payment Estimate is routed to HQ for further approval through the CMS.

Post-conditions

1. Reviewed and approved (by designated approver) payment estimate data in the CMS.
2. Letter is generated to the Contractor (final letter of payment to Contractor when Final Estimate).

Alternate Paths

1. Payment Estimate is rejected
   a. Payment returns to request creator for correction, (UC 11.2)

Business Rules

1. This process is completed five working days after the estimate is completed (20th of each month approximately) in order to facilitate proper turnaround times for payment to the Contractor.
   a. Contractor does not get paid if payment estimate is not completed in the designated period.
2. Notification must be received by the Approver regarding the Payment Estimate Request.
3. Approval authority can be delegated to multiple individuals.
   a. Approval hierarchy to be established in system (i.e. secondary approver if primary is not available).
4. Notification must be sent from the approver to Headquarters regarding the status of the payment request.
5. Notification / Report must be sent from the approver to the RE / Contractor regarding the status of the Payment Request.
6. Can be rejected at anytime prior to payment cutoff (data sent to SCO) and sent back through the process.
7. Fund balances updated per estimate request (i.e. Actual vs. estimate recorded).

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM-5101, “Request for Payment for Materials on Hand”
2. CEM-6001, “Project Record, Estimate Request”
USE CASE: HEADQUARTERS REVIEWS / APPROVES / ROUTES PAYMENT ESTIMATE (UC 11.4)

Brief Description
When the Payment Estimate is a high-type weekly, after-acceptance, semi-final, or Final
Estimate, Headquarters needs to review and approve it before a check is issued to the Contractor.
See Outstanding Issues section of this use case.

Actors
1. Headquarters (HQ)
2. Division of Accounting (DOA)

Systems / Interfaces
1. N/A

 Preconditions
1. Designated Personnel Reviews / Approves / Routes Payment Estimate (UC 11.3).

Flow of Events
1. The use case begins when HQ receives notification that a Payment Estimate Request is in
   process and awaiting their review / approval from CMS.
2. HQ reviews and approves the Payment Estimate in the CMS.
   a. HQ works with the District Office to clear exception items.
3. HQ notifies the DOA that a Payment Estimate Request is awaiting their review / approval.
4. HQ notifies the DOA of voucher data for payment processing (DOA can print Vouchers
   as needed).
   a. Current Voucher Copies Sent by HQ.
      i. Progress pay estimates, monthly, one copy (required by SCO)
      ii. High type estimates, monthly, two copies (one copy required by SCO, one
          by Accounting)

Postconditions
1. Notification of Voucher data availability is sent to DOA for payment processing.
2. Payment Request / Warrants Report data is available in the CMS.

Alternate Paths
1. If HQ does not approve the Payment Request, then HQ works with the District Office and
   clears / manages the items for the next payment cycle.

Business Rules
1. If the Payment Estimate is a high-type weekly, after acceptance, semi-final, or Final
   Estimate, policy states that HQ needs to review and approve it before a check is issued to
   the Contractor.
2. Ability for the daily list of high-type estimates to auto populate retention release info data
   (i.e. 95% complete releases) already approved by RE. (See Also Payment Estimate Use
   Case Business Rules).
3. Ability for CMS to print Vouchers on an as-needed basis (and track printing), vs. the current process of printing Vouchers in HQ and forwarding paper to Accounting, then State Controllers Office (SCO).

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. High Type by District, Expenditure Authorization, Amount.
2. Daily vouchers received and stapled to estimate, then all vouchers later come in to validate.
USE CASE: ACCOUNTING PROCESSES PAYMENTS (UC 11.5)

Brief Description
The Division of Accounting (DOA) verifies any additional withholds for Labor Compliance Violations (LCVs), liens, levies, and also issues any stop notices on the payment, if necessary, and routes data to State Controllers Office (SCO) for payment to Contractor. This entire function will likely take place in IFMS. CMS will likely only receive notification of payment.

Actors
1. State Controllers Office
2. Headquarters (HQ)
3. Division of Accounting
4. Contractor
5. District Estimate Desk
6. HQ Estimate Desk
7. State Controllers Office (SCO)

Systems / Interfaces
1. IFMS
2. CMS to and from IFMS
3. CMS / IFMS to SCO (Payment data)

Preconditions
1. Headquarters Reviews / Approves / Routes Payment Estimate (UC 11.3)
2. Contractor establishes escrow account with DOA for retention.

Flow of Events
1. The use case begins when the DOA receives a notification of Payment Estimate Request data from HQ.
2. The DOA enters any additional withholds for Labor Compliance Violations (LCV’s), liens, levies, and stop notices not already in the CMS.
   a. RE notified of stop / holds, etc.
3. DOA establishes / processes retentions.
4. Verify release of retention and escrow (if applicable, based on Contractor request / RE Approval or system initiation of release (i.e. Contract “95% Complete”).
5. The DOA approves payment and forwards data via electronic interface.
   a. Payment data to IFMS.
   b. Claim Schedule to SCO (EFT and Warrant data).

Postconditions
1. Payment related data interfaced between IFMS and CMS.
2. Voucher related data to SCO for processing.
3. Payment estimate data available in CMS.

Alternate Paths
1. If negative payment estimate data recognized as a receivable, receivable / invoice to Contractor is processed through Accounting / IFMS.
2. If adjustment or stop notice is desired AFTER payment data is sent to SCO for processing, adjustment procedures are taken, such as:
   a. Potentially crediting back the Contractor bank account (via EFT) if overpaid or should have been stopped.
   b. If Warrant, establish procedure with SCO regarding “Pull Report” to be sent back to Accounting OR establish procedure to adjust payments via receivable tracking within the CMS.

Business Rules

1. Notification is to be sent by an approved method to the RE regarding any additional withholds processed against the payment estimate.
2. Payment data must be available for interfacing to the IFMS to properly record / track payment / funds activity.
3. Payment / Voucher data must be available for interfacing with the SCO systems to facilitate payment creation (potentially through IFMS).
4. Payment estimate data made public with all payment data to public medium (i.e. Contractor can access Payment status online).
5. Ability to establish and track escrow and retention payments / balances.
6. RE ability to see status of Payment and Payment details, including withholds, escrow, and retention.
7. For Minor B / Emergency Payments, if not paid within 30 days of invoice receipt, interest is charged.
8. Division of Accounting needs the ability to track the expiration (and for the system to initiate a notification process) of the Contractors Letter of Credit (type “A” escrows).
   a. If monies are owed due to an expired letter of credit the system will consider it an outstanding receivable against the current payment and deduct from the payment accordingly.
9. Ability to track payment type and applicable rules per payment type:
   a. If legal arbitration payments, system would need to recognize that payment type, and per policy,
      i. EFT is not an option and paper warrant payment is required.
      ii. The Payee, if different than the Contractor (i.e. a law firm) information, would need to be updated.
   b. “Pick Up” payment types get routed to DOA from the SCO for Contractor pickup (or special delivery, such as FedEx) vs. straight to Contractor from SCO.
10. Regarding withholds (Stop Notices, Labor Violations, Liens and Levy’s) the system must not only be able to withhold this money from the progress pay estimate, but also perform funds transfer to the Caltrans Special Subsidiary Account for later payment to other organizations. (Also see Business Rules for Payment Estimate UC 11.0)
    a. For Stop Notices, when resolved, payment is sent to Contractor.
    b. For Labor Violations, payment is scheduled to the Department of Industrial Relations.
    c. For Liens and Levies, payment is scheduled to either the Franchise Tax Board or Employment Development Department.
11. DOA needs the ability to generate Claim Schedule face sheets for both EFT and Warrant schedules.
12. Division of Accounting needs the ability to adjust or stop a payment at any reasonable time (before data sent to SCO) during the payment process (EFT or Warrant).

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
USE CASE: GENERATE AND DISTRIBUTE PAYMENTS (UC 11.6)

Brief Description
The State Controllers Office (SCO) generates Checks / EFT payments based on data provided by
the Division of Accounting (DOA) via electronic interface from the CMS / IFMS. The SCO then
distributes the checks and EFT vouchers to the Contractor.
NOTE: This is a change from the current process, which is to have all check warrants and EFT
vouchers returned to The Division of Accounting for further Stop Notice or withhold processing,
and / or distribution.

Actors
1. State Controllers Office
2. Division of Accounting
3. Resident Engineer (RE)
4. Contractor

Systems / Interfaces
1. SCO to IFMS / CMS (EFT / Warrant data per form CD-102)

Preconditions
1. Accounting Processes Payments (UC 11.5).

Flow of Events
1. The use case begins when Accounting sends payment data from CMS or IFMS to the
   SCO via an electronic interface.
2. The data is received and processed by the SCO.
3. The SCO makes deposits of EFT payments into Caltrans Bank of America clearing
   account and is then transferred to the Contractors (or other designated account, based on
   payment type – See Business Rule #10, UC 11.5) accounts.
4. The SCO then distributes the Warrant payments / EFT vouchers to the Contractor.

Post-conditions
1. Accounting processes Labor Compliance violations (LCVs), liens, levies and stop notices
   (UC 11.5).
2. A partial payment, a full payment, or a notice of stop payment is received by the
   Contractor.
   a. EFT Payment transactions are sent to the Contractor.
   b. Warrants are sent to the Contractor.

Alternate Paths
1. If the payment type determines the payment to be returned to accounting for further
   processing, the SCO will return “pulled” payments to the DOA, where they will then
   further process the check.

Business Rules
1. Data interface requirement from SCO (CD-102 data) to CMS to confirm payment and
   update payment status of estimate.
2. Ability for CMS / IFMS interface with Bank of America to handle EFT transaction exception processing.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
A.12. ITEM ADJUSTMENT

This functional area is a sub component of the larger Progress Pay processes which includes:

- Contract Item Quantity Calculation
- Payment Estimate
- Item Adjustment
- Extra Work Bill (EWB)

Item Adjustment includes the following use cases:

- Process Over / Under Run Data (UC 12.1)

The use case flow on the following page depicts the process flow of the use cases within Progress Pay the functional area:
USE CASE: PROCESS ITEM ADJUSTMENTS (UC 12.1)

Brief Description
This process is the identification, review, and resolution of over / under runs on a contract resulting in item adjustments / Contract Change Orders (CCO).

Actors
1. Resident Engineer (RE)
2. Contractor

Systems / Interfaces
1. N/A

Preconditions
1. Pertinent data in the CMS to facilitate identification of / adjustments for item over / under runs:
   a. Materials On Hand
   b. Diary data
   c. Previously documented item quantity calculation sheets
   d. Contract Change Order documentation
   e. Actual cost of labor hours, equipment and materials used for EWB / other Force Account items

Flow of Events
1. The use case begins with the Contractor and RE being notified (by CMS) of under / over runs based on item quantity and requesting / performing an item adjustment if necessary. Item adjustments cannot be made until work on the item is 100% complete.
2. The RE verifies / acknowledges the data in the CMS necessary to validate over / under runs (including, but not limited to item quantity data).
3. The RE receives information from the Contractor regarding actual costs.
4. The RE performs a Force Account analysis on the information that the Contractor gave him and compares this information to his daily Diaries and daily reports to determine what the item adjustment will be.
5. The RE / CMS performs a Force Account analysis on the item to determine adjustment.
6. CMS creates the CCO memo explaining the cost of the CCO, whether it is an over or under run, and the circumstances surrounding the CCO.
7. The RE creates the CCO through the use of CMS pre-defined CCO templates.

Postconditions
1. CCO Memo created and CCO Process Initiated (UC 5.1).

Alternate Paths
1. In Step 3, if the Contractor does not provide actual cost data to the RE, the RE performs independent Force Account analysis with existing data in the CMS (including, but limited to Diary, and Quantity Calculation data).
Business Rules

See CM 3-904 - Payment for Extra Work and it’s subsections for reference.

1. Over / Under runs are identified as 25% over or under the bid quantity of an item of Work.
   a. Of the 25% that an item has gone under the original bid, the State can get compensated for actual costs of up to 75% of the original cost of the item.
   b. If the item is over 25% of the original bid price, the Contractor can get compensated for up to 125% of the original bid price.
      i. This rule holds true, unless the amount is less than $5,000, in which case the Contractor must request for an item adjustment to be run.

2. Currently the Caltrans Construction Manual identifies an item under / over run as stated above (i.e. against bid item quantities). However, these items need to be tracked in consideration of multiple figures and factors, including bid item quantity, the RE’s “best estimated” item quantity, in-progress and approved CCOs (and affected quantities), contingency balance figures, actual cost figures, etc. This is for analysis purposes to allow forecasting, CCO management, and contingency fund management.

3. The ability to notify the RE or Contractor during specific steps of the process.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. CEM-4903, “Contract Change Order Memorandum”
Process: Item Adjustment

Contractor requests an item adjustment

CMS

Payment Estimate Process

Daily Diary Process

Resident Engineer

CMS prepares CCO Memo and facilitates CCO creation through providing templates

CCO Process

At this point, CMS / RE uses the daily diaries and daily reports and compares them to actual cost information.

Confidential For Internal Caltrans Use Only
A.13. EXTRA WORK BILL (EWB)

This functional area is a sub component of the larger Progress Pay processes which includes:

- Contract Item Quantity Calculation
- Payment Estimate
- Item Adjustment
- Extra Work Bill (EWB)

Extra Work Bill includes the following use cases:

- Create / Submit EWB (UC 13.1)
- Review / Approve / Route EWB (UC 13.2)

The use case flow on the following page depicts the process flow of the use cases within Progress Pay the functional area:
USE CASE: CREATE / SUBMIT EWB (UC 13.1)

Brief Description
This process describes the Contractor or RE role in getting Extra Work Bill data into CMS for payment of extra work not covered under the standard contract, but covered under a Contract Change Order. Currently this process involves the Contractor as a system user to an online form for submitting the Extra Work Bill / Invoice for payment. It is then routed and approved and is paid during the Payment Estimate cycle (see UC 11.x). See Outstanding Issues for potential policy / procedural changes for this process.

Actors
1. Contractor
2. Resident Engineer (RE)
3. Field Office Engineer
4. Assistant Resident Engineer (ARE)
5. Subcontractor
6. Office Assistant
7. Labor Compliance
8. Structures

Systems / Interfaces
1. CMS to and from Wholesale Materials Database

Preconditions
1. Work is identified as “Extra Work” or Adjustment of Compensation. See Business Rules for Construction Work Types that may be billed on an Extra Work Bill.
2. An approved Contract Change Order (CCO) in CMS.
3. RE issues a “Notice to Proceed.”
4. Contractor must have access to / working knowledge of CMS.

Flow of Events
If the payment method for the extra work performed is Force Account, then the following flow of events is used:
1. The Contractor compiles and submits the Extra Work Bill data (see SS 9-103) and related invoices to CMS for all billable extra work.
   a. Currently a submission is required for each day of work billed as extra work.
2. RE / Staff is notified of a pending EWB needing review / approval.

If the payment method for the extra work performed is Lump Sum or Unit Price, then the following flow of events is used:
1. The RE / OE / OA enters EWB into CMS based on existing data in CMS such as Diary data (“Extra Work Diaries”), Quantity Calculations, and Material On Hand data as he / she would for item work.
2. RE validates bill for payment.
3. CMS generates the Payment Estimate based on system data (see (UC 11.x)), including Extra Work data.
4. Contractor is notified of Extra Work on Payment Estimate for status viewing. (Contractor approval on Unit Price or Lump Sum EWBs is not required)

**Postconditions**

1. Extra Work at Force Account payment method data (from Contractor) is in the CMS and has been submitted for review, approval, and payment.
2. Extra Work at Unit Price or Lump Sum data in CMS has been validated (only performed during regular payment cycle as part of the Progress Payment process).
3. RE / Staff has been notified of the EWB ready for review, approval, and payment.

**Alternate Paths**

1. N/A

**Business Rules**

1. Extra work is any new and unforeseen work that cannot be covered by a contract item or a combination of contract items, or it may be work designated as extra work in the specifications. Extra work is not a payment method. See Section 3-9, Scope of Work 3-4.5 “Measurement and Payment,” and Section 5-3 of the CM for a discussion of payment methods for extra work.
2. The ability to track labor resource, materials and equipment by date and CCO (to avoid duplicate payment).
3. The ability to automatically reconcile with the Diary extra work at Force Account.

**List of Construction Work Types that May Be Billed on an Extra Work Bill**

<table>
<thead>
<tr>
<th>Std. Specs. Reference</th>
<th>Type of Work Performed</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-1.04</td>
<td>Application of water</td>
<td>Water must be used to support work billed as extra work.</td>
</tr>
<tr>
<td>12-4.01</td>
<td>Barrier relocation</td>
<td>If ordered by Engineer</td>
</tr>
<tr>
<td>16-1.07</td>
<td>Change to amount of grubbing and clearing work</td>
<td>If initially a lump sum, then changes will be force Account</td>
</tr>
<tr>
<td>15-2.07</td>
<td>Clearing and grubbing</td>
<td>If not already itemized in contract</td>
</tr>
<tr>
<td>90-7.03</td>
<td>Cooling water applied to concrete surfaces</td>
<td>When deemed necessary by Engineer</td>
</tr>
<tr>
<td>4-1.04</td>
<td>Detours</td>
<td>If no other method of payment is in the provisions</td>
</tr>
<tr>
<td>10-1.04</td>
<td>Dust Control</td>
<td>Engineer must order the application of water</td>
</tr>
<tr>
<td>19-3.04</td>
<td>Excavation and backfill of culverts (not arch or solid rock or other unyielding)</td>
<td>Must be below the planned elevation of bottom of the culvert</td>
</tr>
<tr>
<td>68-2.03</td>
<td>Exploratory work for horizontal drains</td>
<td>When required by the Engineer</td>
</tr>
<tr>
<td>86-2.03</td>
<td>Extended foundations</td>
<td>If ordered by Engineer</td>
</tr>
<tr>
<td>4-1.03D</td>
<td>Extra work</td>
<td>None</td>
</tr>
<tr>
<td>12-2.02</td>
<td>Flagging costs</td>
<td>None: State pays 50%</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Order by Engineer</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>68-2.03</td>
<td>Furnishing and installing a collector drain</td>
<td>Unless otherwise provided for</td>
</tr>
<tr>
<td>20-5.025</td>
<td>Furnishing and installing gate valves not on plan</td>
<td>Must be ordered by the Engineer</td>
</tr>
<tr>
<td>12-4.01</td>
<td>Furnishing and operating pilot cars</td>
<td>If ordered by Engineer</td>
</tr>
<tr>
<td>20-5.03D</td>
<td>Furnishing and placing bedding material for pipes</td>
<td>Must be ordered by Engineer</td>
</tr>
<tr>
<td>12-4.01</td>
<td>Furnishing, erecting, etc. signs</td>
<td>If ordered by Engineer</td>
</tr>
<tr>
<td>19-2.065</td>
<td>Imported borrow (deficiency material)</td>
<td>If not listed as Contract item</td>
</tr>
<tr>
<td>90-11.02</td>
<td>Incorporate admixtures into the concrete</td>
<td>If ordered by Engineer and not required by special provisions</td>
</tr>
<tr>
<td>20-5.03</td>
<td>Increase the size of exploratory holes</td>
<td>Must be ordered by Engineer, or when necessary or advisable</td>
</tr>
<tr>
<td>86-1.07</td>
<td>Installing and removing temporary power service</td>
<td>If ordered by Engineer</td>
</tr>
<tr>
<td>49-1.04</td>
<td>Labor, equipment, materials, tools, and incidentals for load test beams</td>
<td>None</td>
</tr>
<tr>
<td>39-8.01</td>
<td>Leveling of asphalt concrete</td>
<td>When no Contract item, and ordered by Engineer</td>
</tr>
<tr>
<td>8-1.10</td>
<td>Locating a facility at a different location</td>
<td>Contractor written request, different location than in plan</td>
</tr>
<tr>
<td>8-1.10</td>
<td>Main or trunk lines located and protected</td>
<td>Contractor written notification, location not on plan</td>
</tr>
<tr>
<td>39-4.03</td>
<td>Pavement repair work</td>
<td>Must be ordered by Engineer</td>
</tr>
<tr>
<td>8-1.10</td>
<td>Rearrange utility as part of highway improvement</td>
<td>Written order from Engineer</td>
</tr>
<tr>
<td>8-1.10</td>
<td>Rearrangement of underground facility</td>
<td>Where it is determined by the Engineer</td>
</tr>
<tr>
<td>19-1.03</td>
<td>Removal and disposal of man-made object</td>
<td>Must be requested by Contractor in writing</td>
</tr>
<tr>
<td>20-4.03</td>
<td>Removal and disposal of sidewalks, paved areas</td>
<td>Must be not on plans, invisible, and ordered by Engineer</td>
</tr>
<tr>
<td>20-5.03D</td>
<td>Removing and disposing of rocks and debris</td>
<td>None</td>
</tr>
<tr>
<td>15-2.07</td>
<td>Removal of a facility</td>
<td>If outside contract-specified are for grubbing</td>
</tr>
<tr>
<td>19-3.07</td>
<td>Removal of excavation outside of limits</td>
<td>Engineer must order it</td>
</tr>
<tr>
<td>19-2.04</td>
<td>Removal of slide or slip out material</td>
<td>If order by Engineer of requested in writing by Contractor</td>
</tr>
<tr>
<td>19-2.02</td>
<td>Removal of unsuitable material</td>
<td>If order by Engineer of requested in writing by Contractor</td>
</tr>
<tr>
<td>20-4.03</td>
<td>Removing and disposing of rocks and debris</td>
<td>None</td>
</tr>
<tr>
<td>20-5.03D</td>
<td>Repairs or replacements of standards</td>
<td>If ordered by Engineer</td>
</tr>
<tr>
<td>86-7.02</td>
<td>Replacement of unsatisfactory materials</td>
<td>If ordered by Engineer</td>
</tr>
<tr>
<td>15-2.05</td>
<td>Replacing unsuitable materials</td>
<td>If ordered by Engineer</td>
</tr>
<tr>
<td>20-5.031</td>
<td>Revision of proposed irrigation system</td>
<td>Must be ordered by Engineer</td>
</tr>
<tr>
<td>19-3.04</td>
<td>Rock treatment</td>
<td>None</td>
</tr>
</tbody>
</table>
4. Contractors are to submit EWBs within 60 days of work performed.
   a. System should provide notification to vendor to submit.
5. Contractor to deliver EWBs prior to the 15th of each month, including:
   a. Payrolls per SS 7-1.01A (3) (electronic submission of payroll, weekly).
   b. Material invoices (as attachments):
      i. “If the Contractor does not furnish satisfactory evidence of the cost of the materials from the actual supplier thereof within X days after the date of delivery of the material, or within 15 days after acceptance of the contract, which ever occurs first, the Department reserves the right to establish the cost of the materials at the lowest current wholesale prices at which the materials were available in the quantities delivered to the location of the work, less any discounts.” (SS 9-1.03A {2e}, 9-103C)
      ii. Tie into wholesale database (from various external sources such as Home Depot and the like) to calculate industry average material costs.
      iii. When material invoices are not readily available, a Contractor may choose to bill materials on a different EWB than labor and equipment to expedite payment.
      iv. Track invoice balances from Contractor to submitted EWB payments.
      v. If applicable, provide the ability to prorate discounts from an entire invoice to determine new item cost less applicable unit(s) discounts.
   c. Specialist invoices
      i. Any EWB containing line items for materials and / or work done by specialists will not be paid until the corresponding invoices are provided.
   d. Documentation for payment of Federal Training Hours (unit cost payment).
6. EWBs furnished by the Contractor less than 5 calendar days, not including Saturdays, Sundays, and legal holidays, prior to the preparation of the monthly progress estimate shall not be eligible for payment until the following month’s estimate (SS 9-1.06).
7. Tentative agreements with the Contractor in the field with electronic signature for the amount of work performed and documented in the Daily Diary.
8. Track the difference between the tentative agreement and the work billed.
9. Track the difference between the amount paid, amount billed and the Diary data. The amount paid should match the Diary, the amount billed may not.
10. In the case of Agreed Unit Price or Agreed Lump Sum CCOs, the EWB may be initiated by either the Resident Engineer or the Contractor (CM 2-09-5).
11. Notify RE / Staff of submitted EWB in CMS which requires review, approval, and payment.
12. Provide notifications / constraints on labor and equipment (but do not prevent further input).
13. System must include the Equipment Book (overtime factor, labor surcharge, etc.).
14. Verification of existing equipment list based on Start-up equipment list.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

See Following Matrix of Forms / Reports
The following list of documents represents existing forms and reports used as reference for the Extra Work Bill Process. Much of the data represented on these forms is proposed (per the Business Requirements of other processes, such as Daily Diary Reporting) for online entry to facilitate a more efficient CCO, EWB, Claims and other Adjustment processes.
<table>
<thead>
<tr>
<th>Document Title</th>
<th>Document Purpose</th>
<th>Old Name</th>
<th>New Name</th>
<th>Const. Mn’</th>
<th>Filing Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Statement of Working Days</td>
<td>Engineer reports status of working days to contractor, weekly. During suspension of work, no submittal is required, but resuming copy will indicate non-working days.</td>
<td>HC-146 or HC-146L</td>
<td>CEM-2701</td>
<td>3-00-2</td>
<td>27</td>
</tr>
<tr>
<td>RE Daily Report and ARE Report</td>
<td>Daily Diaries: records detailed information about what the RE/ARE sees while at the work site.</td>
<td>HC-10 and HC-10B</td>
<td>CEM-4501</td>
<td>3-00-3</td>
<td>45, 46</td>
</tr>
<tr>
<td>Quantity Calculation Sheet (for Unit Price only)</td>
<td>Source Document for most contract item quantity calculations.</td>
<td>HC-52</td>
<td>CEM-4801</td>
<td>3-00-3</td>
<td>48</td>
</tr>
<tr>
<td>Contract Change Order (CCO)</td>
<td>Used to modify contract requirements.</td>
<td>HC-5</td>
<td>HC-5</td>
<td>3-00-5</td>
<td>49</td>
</tr>
<tr>
<td>Certified Owner-Operator Listing W/Statement of Compliance</td>
<td>Used by Contractors to report owner-operated payments to the RE.</td>
<td>HC-58</td>
<td>CEM-2505</td>
<td>3-00-6</td>
<td>25</td>
</tr>
<tr>
<td>Extra Work Bill</td>
<td>Used by Contractor or RE to submit invoices for Extra Work in progress or completed.</td>
<td>HC-24C</td>
<td>CEM-4902, A, B, C, D</td>
<td>3-00-3</td>
<td>49</td>
</tr>
<tr>
<td>Payroll (weekly)</td>
<td>This payroll form may be used by Contractors on all projects. Instructions are contained in the Guide For Labor Compliance Enforcement</td>
<td>HC-347</td>
<td>CEM-2502</td>
<td>3-00-2</td>
<td>25</td>
</tr>
<tr>
<td>Daily Extra Work Report</td>
<td>Lists EW Bs per CCO#</td>
<td>N/A</td>
<td>N/A</td>
<td>3-01-10</td>
<td>49</td>
</tr>
<tr>
<td>Daily Extra Work Report Edit Messages</td>
<td>Lists status of Extra Work</td>
<td>N/A</td>
<td>N/A</td>
<td>3-01-11</td>
<td>60</td>
</tr>
</tbody>
</table>
USE CASE: REVIEW / APPROVE / ROUTE EWB (UC 13.2)

Brief Description
Once an Extra Work Bill (EWB) has been submitted, either by the Contractor, or compiled by the RE as part of the Payment Estimate, the system validates the EWB data against the Diary / Payroll data already in CMS and approves or rejects as necessary with user input as applicable. Once approved, the EWB data is then used as an input to the Payment Estimate Process.

Actors
1. Resident Engineer (RE)
2. Field Office Engineer / Reviewer
3. Contractor
4. Subcontractor
5. Structures

Systems / Interfaces
1. Equipment Rental Rates

 Preconditions
1. EWB data has been entered / submitted / validated in the CMS (UC 13.1).
2. Pertinent data needed to review and approve the submitted / validated EWB is available in the CMS:
   a. Diary - Observation Data (UC 3.x)
   b. Payroll Data
   c. Equipment Rental Rates
   d. Invoices from Contractor

Flow of Events
If the payment method for the extra work performed is Force Account, then the following flow of events is used:
1. The RE / Staff receives notification from CMS that an EWB is awaiting their review / approval.
2. Staff reviews / recommends / rejects (with comments).
3. RE or RE authority reviews / approves / rejects (with comments) the EWB for payment through the normal Payment Estimate process.
4. If step 2 or 3 produce a rejection of the EWB and it is sent back to the Contractor for changes, the RE must provide cause or explanation for rejection and provide the Contractor with an opportunity to make changes and resubmit.

If the payment method for the extra work performed is Lump Sum or Unit Price, then the following flow of events is used:
2. The Contractor views status of the Payment Estimate (with Extra Work delineated) and can review based on their own supporting data (review is not required by Contractor for Unit Price or Lump Sum EWBs – unilateral approval by Caltrans staff is current policy).
3. If the Contractor has questions / comments they can notify the RE through the CMS.
4. Once completed, the EWB payment is sent as part of the normal Payment Estimate process.

Post-conditions

1. EWB is reviewed, approved and available for payment on the current / next payment cycle.

Alternate Paths

1. For Contractor submitted EWBs (at Force Account), the RE or authorized Caltrans staff can revise the EWB down and submit, which will then notify the Contractor for their review / approval.
2. Contractor has the opportunity to protest the reduction of any EWB (as shown above) prior to the processing of the bill at a lower price.
   a. Moves to Dispute Resolution process.
3. The EWB can also be rejected and sent back to the contractor for revision.
   a. This would halt the EWB process for this bill.

Business Rules

Reviewing a Created / Submitted EWB

- EWBs to be reviewed by the Caltrans staff assigned to the EWB; typically, the Resident Engineer or Assistant Resident Engineer or Field Office Staff. (CM 2-09-6{2}, 2-09-7{4}, 3-02-31).
- The Resident Engineer or Assistant Resident Engineer must perform an online review of submitted EWBs by comparing them to supporting documents.
- Depending on whether equipment, materials and labor charges appear on the EWB being reviewed, some or all of the following steps in the review process may be employed. Additionally, the review process need not occur in the sequence shown.

The EWB review process at Force Account is:

1. EWB Data
   a. Ensure correct and accurate data.
   b. Review EWB Status, Contractor Comments and / or Contractor Protests.
   c. For extra work at Force Account, review the EWB per CM 2-09-6, 2-09-14, 15, 2-50-6 (3.); SS 9-1.03.
   d. If there is a Right of Way Delay issue, see CM 2-08-17; SS 8-1.09.
   e. If there is Flagging issue, see SS 12-2.
2. Equipment Data
   a. Review EWB Equipment per CM 2-05-3, 2-09-8 (1) through 2-09-14; SS Sections 5-1.10, 5-1.11; 6-1.01 through 6-3.02, and 9-1.03A-B.
   b. Compare line items with the RE or ARE Daily Report, CEM 4501.
3. Materials Data
   a. Review EWB Materials per CM 2-04-6, 2-04-9, 2-08-18, 2-09-14, 2-10-3, 4, 5, all of Chapter 8; SS Sections 6-1 and 9-1.03A (2-2e).
   b. Compare line items with the RE or ARE Daily Report, CEM 4501.
4. Labor Data
   a. Review EWB Labor per CM 2-09-7(4d), 2-09-8; SS 9-1.03A (1-1b).
b. Compare line items with the RE or ARE Daily Report, CEM 4501.
c. If there are travel and subsistence charges, see SS 7-1.01A (2) (a) and 9-1.03A (1b).
d. Review the EWB for other expenses subject to labor markup.

5. Additional Reviews
   a. If there was a temporary suspension of work, see CM 2-08-11; SS 8-1.05.
   b. If the contract has already been terminated, see CM 2-08-16; SS 8-1.11.
   c. If main or trunk lines were discovered, see CM 2-80-1; SS 8-1.10.
   d. Ensure accurate, up-to-date payroll records are on file per SS 7-1.01A(3), p. 45, fifth paragraph.
   e. If Subcontractors have performed work, see CM 2-08-1 through 2-08-8; SS 2-1.054, 8-1.01, and 9-1.03A.
   f. If annual interest is due, see CM 2-09-5, 6.
   g. If Special Forces were employed, see CM 2-09-13; SS 9-1.03B.
   h. If this is a Federal Aid – Interstate Project, see CM 2-50-10, 2-90-4, 8-01-2: SS 5-1.08.
   i. If this is a partial payment, see CM 2-10.
   j. If this is a final payment, see CM 2-11.

6. Payment should not exceed 100% of the value of the Change Order to a maximum of 15 K and notify RE if payment is over 100%.

7. Agreed Unit Price Extra Work Bills may be created by the Contractor for Federal Training CCOs only. Otherwise, Agreed Unit Price and Agreed Lump Sum bills are created, validated, submitted and approved by the ARE or RE. Although Contractor review is not required, the Contractor may view the EWB to check status.

8. The EWB review process at Agreed Unit Price or Agreed Lump Sum is:
   a. EWB Data
      i. Ensure correct and accurate data.
      ii. Review EWB Status, Contractor Comments.
      iii. “Payments of Agreed Lump Sum prices may not exceed the amount authorized on the Contract Change Order. Payment for Agreed Unit prices may vary from the estimated quantities shown on the Contract Change Order, provided that such variations are normal differences from the estimated quantities.” (CM 2-0905)
      iv. Review the EWB per CM 2-50-5.
      v. If this is a Lump Sum bill, review the line items per CM 2-09-5; SS 16-1.07.
      vi. If this is a Unit Price bill, review the line items per CM 2-09-5.
   b. Materials Data
      i. Compare EWB line items with the RE or ARE Daily Report, CEM 4501.
      ii. Compare EWB line items with source documents.

9. Approving an EWB
   a. All EWBs are approved when the RE electronically approves them. They are then ready for payment.
   b. The RE / RE Authority must be notified of a suspended EWB that cannot be paid with the originating CCO and will require a supplemental CCO.

10. Rejecting an EWB
    a. EWB may be rejected at any time for missing or inaccurate data.

11. Revising a Rejected EWB
    a. The ability to look up an EWB for status and revision will be available to the
Contractor in CMS.
b. If the Contractor does not have access to the CMS, the reasons for EWB rejection will accompany the returned EWB in hardcopy format.

12. Re-Sending a Revised EWB
a. Contractor must revise and re-send a rejected EWB within 5 working days of determining that it was rejected.

13. Tracking EWB Status
a. To determine the status of an EWB, a Resident Engineer or Contractor need to query the CMS. If a Contractor does not have access to the CMS, he may contact the Resident Engineer for EWB status.

14. Request the update of the Miscellaneous Equipment Rate by the Contractor and approved by the RE.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

See Following Matrix of Forms / Reports
The following list of documents represents existing forms and reports used as reference for the Extra Work Bill Process. Much of the data represented on these forms is proposed (per the Business Requirements of other processes, such as Daily Diary Reporting) for online entry to facilitate a more efficient CCO, EWB, Claims and other Adjustment processes.

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Document Purpose</th>
<th>Old Name</th>
<th>New Name</th>
<th>Const. Mn’ Refrce’</th>
<th>Filing Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Statement of Working Days</td>
<td>Engineer reports status of working days to contractor, weekly. During suspension of work, no submittal is required, but resuming copy will indicate non-working days.</td>
<td>HC-146 or HC-146L</td>
<td>CEM-2701</td>
<td>3-00-2</td>
<td>27</td>
</tr>
<tr>
<td>RE Daily Report and ARE Report</td>
<td>Daily Diaries: records detailed information about what the RE/ARE sees while at the work site.</td>
<td>HC-10 and HC-10B</td>
<td>CEM-4501</td>
<td>3-00-3</td>
<td>45, 46</td>
</tr>
<tr>
<td>Quantity Calculation Sheet (for Unit Price only)</td>
<td>Source Document for most contract item quantity calculations.</td>
<td>HC-52</td>
<td>CEM-4801</td>
<td>3-00-3</td>
<td>48</td>
</tr>
<tr>
<td>Contract Change Order (CCO)</td>
<td>Used to modify contract requirements.</td>
<td>HC-5</td>
<td>HC-5</td>
<td>3-00-5</td>
<td>49</td>
</tr>
<tr>
<td>Certified Owner-Operator Listing W/Statement of Compliance</td>
<td>Used by Contractors to report owner-operated payments to the RE.</td>
<td>HC-58</td>
<td>CEM-2505</td>
<td>3-00-6</td>
<td>25</td>
</tr>
<tr>
<td>Extra Work Bill</td>
<td>Used by Contractor or RE to submit invoices for Extra Work in progress or completed.</td>
<td>HC-24C</td>
<td>CEM-4902, A,B,C,D</td>
<td>3-00-3</td>
<td>49</td>
</tr>
<tr>
<td>Payroll (weekly)</td>
<td>This payroll form may be used by Contractors on all projects. Instructions are contained in the Guide For Labor Compliance Enforcement</td>
<td>HC-347</td>
<td>CEM-2502</td>
<td>3-00-2</td>
<td>25</td>
</tr>
<tr>
<td>Daily Extra Work Report</td>
<td>Lists EWBs per CCO#</td>
<td>N/A</td>
<td>N/A</td>
<td>3-01-10</td>
<td>49</td>
</tr>
<tr>
<td>Daily Extra Work Report Edit Messages</td>
<td>Lists status of Extra Work</td>
<td>N/A</td>
<td>N/A</td>
<td>3-01-11</td>
<td>60</td>
</tr>
</tbody>
</table>
Process: Extra Work Billing (Unit Price & Lump Sum Only)

Resident Engineer / Staff

- Daily Diary Process
- RE Validates EWB against stored CMS data
- RE Approves Extra Work Billing

CMS

- EWB Data Stored
- CMS Notifies RE EWB needing review / approval
- Daily Diary Data ("Extra Work Diaries")
- Payroll Data from Contractor
- Quantity Calculation Data
- CMS Notifies Contractor of EWB for status viewing
- Payment Estimate Process

Contractor

- Equipment Rental Rates
- Invoice Data from Contractor
- Materials on Hand Data
- Contract submits / enters Labor, Materials and Equipment Data / Invoices
A.14. DISPUTE RESOLUTION

This functional area includes the following use cases:

- Create Dispute / Claim Tracking Template (UC 14.2)
- Associate Documentation in CMS with Dispute (UC 14.3)
- Associate Comments with Dispute or Specific Deliverable (UC 14.4)
- Enter Response to Written Notice / Protest / Initial NOPC (UC 14.5)
- Enter Supplemental NOPC (UC 14.6)
- Enter Response to Supplemental NOPC (UC 14.7)
- Enter Contractor Response to Supplemental NOPC Response (UC 14.8)
- Enter DRB Meeting Request (UC 14.9)
- Enter DRB Meeting Schedule (UC 14.10)
- Enter DRB Position Papers (UC 14.11)
- Enter DRB Determination and Ruling (UC 14.12)
- Enter Responses to DRB Determination and Ruling (UC 14.13)
- Enter DRB Determination and Ruling Clarification Request (UC 14.14)
- Enter DRB Determination and Ruling Clarification Response (UC 14.15)
- Enter Full and Final NOPC (UC 14.16)
- Enter Response to Full and Final NOPC (UC 14.17)
- Enter Contractor Response to Full and Final NOPC Response (UC 14.18)

The use case flow on the following page depicts the process flow of the use cases within the functional area:

Note: Alternate path at each phase of Dispute Resolution and Claim process is:
1. Dispute is resolved via CCO (see section 4.0 CCO)
2. Dispute is dropped.
3. Dispute is settled – payment made to contractor (see section 10 through 13 depending on the type of payment)
Use Case: Dispute Resolution Process (1 of 1)

Designated parties are notified as necessary throughout the process.

Contractor can Drop Dispute/Claim or Accept Caltrans Decision/CCO Anytime in Process. Contractor Can Also Exhaust Dispute Resolution Process and Proceed to Claim Process.

Ongoing Through Life of Dispute/Claim and Can be Performed with Proper Access.

Includes Use Cases 14.5,-14.9, 14.11-14.13, 14.15-14.18

any point in the process the dispute item can be resolved by CCO, yment, or dropped by the contractor and closed.

Entries include Notification to Designated Parties and CMS Updates to Tracking Template
USE CASE: ENTER INITIAL DISPUTE (UC 14.1)

Brief Description

The Contractor argues the conditions were unforeseen (Written Notice), the Contractor disputes the terms or conditions of a Contract Change Order or the determination of contract time (Protest), or the Contractor argues that additional compensation is due (NOPC). This could be the result of any dispute throughout the construction process from start up to close out.

Actors

1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Claims Desk
5. Other Designated Caltrans Staff

Systems / Interfaces

1. N/A

Pre-conditions

1. Disputed event occurs.

Flow of Events

1. Contractor enters the Written Notice, Protest, or Initial NOPC in CMS.

Post-conditions

1. Written Notice, Protest, or Initial NOPC verified and stored in CMS.
2. Dispute Identifier generated by CMS.
3. Designated parties are notified by CMS.

Alternate Paths

1. Dispute is resolved via CCO (see section 4.0 CCO)
2. Dispute is dropped.
3. Dispute is settled – payment made to contractor (see section 10 through 13 depending on the type of payment)

Business Rules

1. Written Notice, Protest, or Initial NOPC to contain at a minimum the Nature and Circumstances of the Dispute, Dispute Date, and Dispute Type.
2. Written Notice, Protest, or Initial NOPC to generate a unique and non reusable Dispute Identifier that will allow all documentation associated with the Dispute to be linked.
3. Comments or documentation to be linked to this specific Dispute Deliverable.
4. Once the Written Notice, Protest, or Initial NOPC is entered, notifications to designated parties are made by CMS.
5. Written Notice, Protest, or Initial NOPC to be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
6. CMS to log when the Written Notice, Protest, or Initial NOPC is viewed by designated Caltrans staff and when viewed, a letter confirming receipt of the Contractor’s submittal will be generated to the Contractor.

7. Tracking Template associated with Dispute updated by CMS with data to date.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. CEM-6201A Initial Notice of Potential Claim
USE CASE: CREATE DISPUTE / CLAIM TRACKING TEMPLATE (UC 14.2)

Brief Description
A tracking log on the Dispute metrics, routing, and status is generated by CMS and can be updated at anytime by designated staff throughout the life of the Dispute.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Claims Desk
5. Legal
6. Office of Audits and Investigations (OAI)
7. Office of Administrative Hearing (OAH)
8. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Written Notice, Protest, or Initial NOPC in CMS.

Flow of Events
1. Contractor enters the Written Notice, Protest, or Initial NOPC in CMS.
2. CMS creates and links the Tracking Template to the Dispute.
3. Tracking Template updated by designated staff and / or CMS with information to date.

Post-conditions
1. Tracking Template in CMS and initiated with data to date.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. CMS to create Tracking Template for Dispute with fields to track Dispute through Arbitration and including Audits if required.
2. Key deliverable dates will be applied based on timeline from Dispute through Arbitration and including Audits if necessary.
3. Tracking Template to be configurable to allow reminder, warning, and confirmation notifications by deliverable for deliverable dates
4. CMS to update the Status of a dispute when appropriate (e.g. Response Entered, Response Opened, etc.) and allow for manual update of Status when automatic CMS updates not possible or appropriate.
5. CMS to calculate the Metrics of a dispute when appropriate (e.g. Aging, Cost, Last Viewed, etc.) and allow for manual calculation of metrics when automatic CMS calculations not possible or appropriate.
6. CMS to update the Routing of a dispute when appropriate (e.g. RE, District Director, etc.) and allow for manual update of Routing when automatic CMS updates not possible or appropriate.

7. Template sections to be restricted to certain staff depending on Status (e.g. if in Arbitration, OAH staff and other designated staff can update the Arbitration data).

8. CMS should allow all data to be available in a hardcopy report in a format that can be sent and read electronically.

9. Template will have the flexibility at the District to at a minimum:
   a. Define Deliverables and Deliverable timelines
   b. Define Deliverable Dates
   c. Track Deliverable Dates
   d. Track Dispute / Claim by Category and Type
   e. Calculate deliverable aging
   f. Dispute / Claim Value Estimate
   g. Dispute / Claim Status in timeline
   h. Dispute / Claim Resolution (Dropped, Settled, Resolved, etc.)

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. See State of California Department of Transportation “Monthly Arbitration Status Report” as a basis for Arbitration data to track.
2. See current CCIS reports for Claim information to track.
3. See District 4 Blue Memo2-70.02 for Dispute / Claim internal deliverables and milestones to track.
4. See CM 5-4 pages 69-77 for Dispute / Claim deliverable timelines and thresholds.
USE CASE: ASSOCIATE DOCUMENTATION IN CMS WITH DISPUTE (UC 14.3)

Brief Description
Documentation in CMS can be associated with the Dispute by the Dispute Identifier.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Claims Desk
5. Legal
6. Office of Audits and Investigations (OAI)
7. Office of Administrative Hearing (OAH)
8. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Tracking Template in CMS and initiated with data to date.
2. Designated parties are notified.

Flow of Events
1. Contractor enters the Written Notice, Protest, or Initial NOPC in CMS.
2. Dispute Identifier created.
3. Designated staff can associate documentation in CMS by the Dispute Identifier.

Post-conditions
1. Documentation relevant to the Dispute is updated with the Dispute Identifier.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Documentation in CMS (e.g. Diaries, photos, specs, designs, etc.) can be associated with a Dispute by the Dispute Identifier.
2. Associated documentation to be associated with multiple Disputes via multiple Dispute Identifiers.
3. Documentation can be associated with a specific Dispute Deliverable within a Dispute.
4. Documentation can be disassociated from Disputes or specific Dispute Deliverables within a Dispute.
5. Different documentation pieces can be associated simultaneously (e.g. multiple photos can be associated at the same time) via searches.

Outstanding Issues
1. N/A
Questions

1. N/A

Forms

1. N/A
USE CASE: ASSOCIATE COMMENTS WITH DISPUTE OR SPECIFIC DELIVERABLE (UC 14.4)

Brief Description

Additional comments or documentation can be added to the Dispute or a specific Dispute Deliverable even if the specific Dispute Deliverable is non editable.

Actors

1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer RE)
4. Claims Desk
5. Legal
6. Office of Audits and Investigations (OAI)
7. Office of Administrative Hearing (OAH)
8. Other Designated Caltrans Staff

Systems / Interfaces

1. N/A

Pre-conditions

1. Documentation relevant to the Dispute is updated with the Dispute Identifier.
2. Designated parties are notified.

Flow of Events

1. Contractor enters the Written Notice, Protest, or Initial NOPC in CMS.
2. Dispute Identifier created.
3. Designated staff can associate comments with the Dispute or a specific Dispute Deliverable.

Post-conditions

1. Comments on the Dispute or specific Dispute Deliverable are entered.
2. Designated parties are notified.

Alternate Paths

1. See alt path for 14.1

Business Rules

1. Non editable comments in a “blog” style on the Dispute or a specific Dispute Deliverable can be entered by designated staff.
2. Comments can be formatted into a report.
3. Tracking Template associated with Dispute updated by CMS with data to date.

Outstanding Issues

1. N/A
Questions

1. N/A

Forms

1. N/A
USE CASE: ENTER RESPONSE TO WRITTEN NOTICE / PROTEST / INITIAL NOPC (UC 14.5)

Brief Description
The RE responds to the Written Notice, Protest, or Initial NOPC.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Claims Desk
5. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Written Notice, Protest, or Initial NOPC in CMS.

Flow of Events
1. RE enters the response to the Written Notice, Protest, or Initial NOPC in CMS.
2. Designated parties are notified.

Post-conditions
1. Response to the Written Notice, Protest, or Initial NOPC verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Response can be added to the Written Notice, Protest, or Initial NOPC (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Dispute Deliverable.
3. Once the Response is entered, notifications to designated parties are made by CMS.
4. Response must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
5. CMS to log when the Response is viewed by designated Contractor staff and when viewed, a receipt will be generated to the designated Caltrans staff and the Response can no longer be edited.
6. Tracking Template associated with Dispute updated by CMS with data to date.

Outstanding Issues
1. N/A

Questions
1. N/A
Forms

1. N/A
USE CASE: ENTER SUPPLEMENTAL NOPC (UC 14.6)

Brief Description
The Supplemental NOPC contains additional information to supplement the Initial NOPC.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Construction Engineer
5. Deputy District Director
6. Headquarters (HQ) Reviewer
7. Claims Desk
8. Other Designated Caltrans Staff
9. Headquarters (HQ) Reviewer

Systems / Interfaces
1. N/A

Pre-conditions
1. Response to the Written Notice, Protest, or Initial NOPC verified and stored in CMS.
2. Designated parties are notified.

Flow of Events
1. Contractor enters Initial NOPC in CMS.
2. RE enters Response to Initial NOPC in CMS.
3. Contractor enters Supplemental NOPC in CMS.

Post-conditions
1. Supplemental NOPC verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Supplemental NOPC to contain at a minimum Cost Data to supplement the Initial NOPC (see Forms section for template data).
2. Supplemental NOPC can be added to the Initial NOPC Response (to minimize repetitive data entry) or entered as a separate document.
3. Comments or documentation to be linked to this specific Dispute Deliverable.
4. Once the Supplemental NOPC is entered, notifications to designated parties are made by CMS.
5. Supplemental NOPC to be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
6. CMS to log when the Supplemental NOPC is viewed by designated Caltrans staff and when viewed, a receipt will be generated to designated Contractor staff and the Supplemental NOPC can no longer be edited.
7. Tracking Template associated with Dispute updated by CMS with data to date.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. CEM-6201B
USE CASE: ENTER RESPONSE TO SUPPLEMENTAL NOPC (UC 14.7)

Brief Description
The RE responds to the Supplemental NOPC.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Construction Engineer
5. Deputy District Director
6. Head Quarter (HQ) Reviewer
7. Claims Desk
8. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Supplemental NOPC verified and stored in CMS.
2. Designated parties are notified.

Flow of Events
1. Contractor enters the Supplemental NOPC in CMS.
2. RE enters response to the Supplemental NOPC in CMS.

Post-conditions
1. Response to the Supplemental NOPC verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Response can be added to the Supplemental NOPC (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Dispute Deliverable.
3. Once the Response is entered, notifications to designated parties are made by CMS.
4. Response must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
5. CMS to log when the Response is viewed by designated Contractor staff and when viewed, a receipt will be generated to the designated Caltrans staff and the Response can no longer be edited.
6. Tracking Template associated with Dispute updated by CMS with data to date.

Outstanding Issues
1. N/A
Questions

1. N/A

Forms

1. N/A
USE CASE: ENTER CONTRACTOR RESPONSE TO SUPPLEMENTAL NOPC RESPONSE (UC 14.8)

Brief Description
The Contractor responds to the RE Response to the Supplemental NOPC Response.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Construction Engineer
5. Deputy District Director
6. Claims Desk
7. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Response to the Supplemental NOPC verified and stored in CMS.
2. Designated parties are notified.

Flow of Events
1. RE enters Response to the Supplemental NOPC in CMS.
2. Contractor enters Response to RE Response to Supplemental NOPC in CMS.

Post-conditions
1. Contractor Response to the RE Response to the Supplemental NOPC verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Response to contain at a minimum Agree / Disagree indicator.
2. Response can be added to the RE Response to the Supplemental NOPC (to minimize repetitive data entry) or entered as a separate document.
3. Comments or documentation to be linked to this specific Dispute Deliverable.
4. Once the Response is entered, notifications to designated parties are made by CMS.
5. Response must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
6. CMS to log when the Response is viewed by designated Contractor staff and when viewed, a receipt will be generated to the designated Caltrans staff and the Response can no longer be edited.
7. Tracking Template associated with Dispute updated by CMS with data to date.
Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. N/A
USE CASE: ENTER DRB MEETING REQUEST (UC 14.9)

Brief Description
Dispute Review Board meeting is requested by the Contractor.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Claims Desk
5. Dispute Review Board
6. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. DRB created.

Flow of Events
1. Contractor does not accept RE responses to Dispute.
2. Contractor enters DRB meeting request in CMS.
3. Designated parties are notified.

Post-conditions
1. DRB meeting request entered in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Receipt for Meeting Request to be generated by CMS.
2. Meeting Request acknowledgement by key parties to be tracked by CMS.
3. Meeting Request Follow Up / Warning Notifications to be generated by CMS.
4. Type of DRB (Formal / Informal) on request.
5. Tracking Template associated with Dispute updated by CMS with data to date.

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. N/A
USE CASE: ENTER DRB MEETING SCHEDULE (UC 14.10)

Brief Description
Dispute Review Board meeting is scheduled by the DRB.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Claims Desk
5. Dispute Review Board
6. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. DRB meeting request in CMS.
2. DRB meeting request acknowledged by key parties.

Flow of Events
1. Contractor enters DRB meeting in CMS.
2. Key parties acknowledge meeting request in CMS.
3. DRB meeting is scheduled.

Post-conditions
1. DRB meeting scheduled and entered in CMS.
2. Designated parties are notified.
3. Designated parties acknowledge scheduled meeting.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Notifications for Meeting Schedule to be generated by CMS.
2. Meeting Schedule acknowledgement by key parties to be tracked by CMS.
3. Meeting Schedule Follow Up / Warning Notifications to be generated by CMS.
4. Tracking Template associated with Dispute updated by CMS with data to date.

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. N/A
USE CASE: ENTER DRB POSITION PAPERS (UC 14.11)

Brief Description
The RE and Contractor enter their respective the Position Papers for the DRB meeting.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Dispute Review Board
5. Construction Engineer
6. Deputy District Director
7. Headquarter (HQ) Reviewer
8. Claims Desk
9. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. DRB Meeting scheduled in CMS.

Flow of Events
1. DRB Meeting scheduled.
2. RE and Contractor enter DRB position papers for DRB meeting in CMS.

Post-conditions
1. DRB Position Papers verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Position Papers can be added to the RE and Contractor Supplemental NOPC Responses (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Dispute Deliverable.
3. Once the Position Papers are entered, notifications to designated parties are made by CMS.
4. Position Papers must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, and/or Entry Date.
5. CMS to log when the Position Paper is viewed by designated Contractor and Caltrans staff and when viewed, a receipt will be generated to the designated Contractor and Caltrans staff and the Position Papers can no longer be edited.
6. Tracking Template associated with Dispute updated by CMS with data to date.
Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
USE CASE: ENTER DRB DETERMINATION AND RULING (UC 14.12)

Brief Description
The DRB enters their Determination and Ruling Report after the DRB meeting.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Dispute Review Board
5. Construction Engineer
6. Deputy District Director
7. Headquarter (HQ) Reviewer
8. Claims Desk
9. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. DRB Meeting scheduled in CMS.

Flow of Events
1. RE enters position paper for meeting in CMS.
2. Contractor submits position paper to DRB or enters in CMS.
3. DRB meeting held.
4. DRB enters Determination and Ruling Report in CMS.

Post-conditions
1. DRB Determination and Ruling Report validated and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Determination and Ruling Report can be added to the RE Position Paper (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Dispute Deliverable.
3. Once the Determination and Ruling Report is entered, notifications to designated parties are made by CMS.
4. Determination and Ruling Report must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, and / or Entry Date.
5. CMS to log when the Determination and Ruling Report is viewed by designated Contractor or Caltrans staff and when viewed, a receipt will be generated to the designated Contractor or Caltrans staff and the Determination and Ruling Report can no longer be edited.
6. Tracking Template associated with Dispute updated by CMS with data to date.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. N/A
USE CASE: ENTER RESPONSES TO DRB DETERMINATION AND RULING (UC 14.13)

Brief Description

The RE and Contractor respond to the DRB Determination and Ruling.

Actors

1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Dispute Review Board
5. Construction Engineer
6. Deputy District Director
7. Headquarter (HQ) Reviewer
8. Claims Desk
9. Other Designated Caltrans Staff

Systems / Interfaces

1. N/A

Pre-conditions

1. DRB Determination and Ruling in CMS.

Flow of Events

1. DRB enters Determination and Ruling in CMS.
2. RE enters response to DRB Determination and Ruling in CMS.

Post-conditions

1. RE Response to the DRB Determination and Ruling verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths

1. See alt path for 14.1

Business Rules

1. Response to contain at a minimum Agree / Disagree indicator.
2. Response can be added to the DRB Determination and Ruling (to minimize repetitive data entry) or entered as a separate document.
3. Comments or documentation to be linked to this specific Dispute Deliverable.
4. Once the Response is entered, notifications to designated parties are made by CMS.
5. Response must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
6. CMS to log when the Response is viewed by designated Contractor staff and when viewed, a receipt will be generated to the designated Caltrans staff and the Response can no longer be edited.
7. Tracking Template associated with Dispute updated by CMS with data to date.
Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
USE CASE: ENTER DRB DETERMINATION AND RULING CLARIFICATION REQUEST (UC 14.14)

Brief Description
The Contractor and/or RE request clarification of the Dispute Review Board Determination and Ruling.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Dispute Review Board
5. Construction Engineer
6. Deputy District Director
7. Headquarters (HQ) Reviewer
8. Claims Desk
9. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. RE’s original DRB Determination and Ruling Response in CMS.
2. Contractor’s original DRB Determination and Ruling Response in CMS.

Flow of Events
1. DRB enters Determination and Ruling in CMS.
2. RE and Contractor enter their respective responses in CMS.
3. Contractor and/or RE enter DRB Determination and Ruling Clarification Request in CMS.
4. Designated parties are notified.

Post-conditions
1. DRB Determination and Ruling Clarification Request entered in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Receipt for Determination and Ruling Clarification Request to be generated by CMS.
2. Determination and Ruling Clarification Request acknowledgement by key parties to be tracked by CMS.
3. Tracking Template associated with Dispute updated by CMS with data to date.

Outstanding Issues
1. N/A
Questions

1. N/A

Forms

1. N/A
USE CASE: ENTER DRB DETERMINATION AND RULING CLARIFICATION RESPONSE (UC 14.15)

Brief Description
The DRB responds to the DRB Determination and Ruling Clarification Request.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Dispute Review Board
5. Construction Engineer
6. Deputy District Director
7. Headquarter (HQ) Reviewer
8. Claims Desk
9. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. DRB Determination and Ruling Clarification Request in CMS.

Flow of Events
1. Contractor and / or RE enter DRB Determination and Ruling Clarification Request in CMS.
2. DRB enters DRB Determination and Ruling Clarification Request Response in CMS.

Post-conditions
1. DRB Determination and Ruling Clarification Request Response verified and stored in CMS
2. Designated parties are notified

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Response can be added to the DRB Determination and Ruling (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Dispute Deliverable.
3. Once the Response is entered, notifications to designated parties are made by CMS.
4. Response must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
5. CMS to log when the Response is viewed by designated Caltrans or Contractor staff and when viewed, a receipt will be generated to the designated Caltrans or Contractor staff and the Response can no longer be edited.
6. Tracking Template associated with Dispute updated by CMS with data to date.
Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
USE CASE: ENTER FULL AND FINAL NOPC (UC 14.16)

Brief Description
The Full and Final NOPC contains additional information to supplement the Supplemental NOPC, Contractor DRB Position Paper, DRB Determination and Ruling, and DRB Determination and Ruling Response.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Construction Engineer
5. Deputy District Director
6. Claims Desk
7. Other Designated Caltrans Staff

HQ Reviewer Systems / Interfaces
1. N/A

Pre-conditions
1. Supplemental NOPC in CMS.
2. RE Response to Supplemental NOPC in CMS.
3. DRB Determination and Ruling in CMS.
4. Contractor Response to DRB Determination and Ruling in CMS.

Flow of Events
1. Contractor rejects a series of Caltrans decisions and responses to earlier Dispute deliverables.
2. Contractor enters Full and Final NOPC.

Post-conditions
1. Full and Final NOPC verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. The Full and Final NOPC to contain at a minimum the latest Cost Data to supplement the Supplemental NOPC.
2. Full and Final NOPC to be added to the Supplemental NOPC (to minimize repetitive data entry) or entered as a separate document.
3. Comments or documentation to be linked to this specific Dispute Deliverable.
4. Once the Full and Final NOPC is entered, notifications to designated parties are made by CMS.
5. Full and Final NOPC to be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
6. CMS to log when the Full and Final NOPC is viewed by designated Caltrans staff and when viewed, a receipt will be generated to designated Contractor staff and the Full and Final NOPC can no longer be edited.
7. Tracking Template associated with Dispute updated by CMS with data to date.

Outstanding Issues
1. N/A

Questions
1. N/A

Forms
1. CEM-6201C Full and Final Documentation of Potential Claim
USE CASE: ENTER RESPONSE TO FULL AND FINAL NOPC (UC 14.17)

Brief Description
The RE responds to the Full and Final NOPC.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Construction Engineer
5. Deputy District Director
6. Headquarter (HQ) Reviewer
7. Claims Desk
8. Other Designated Caltrans Staff

Systems / Interfaces
1. See alt path for 14.1

Pre-conditions
1. Full and Final NOPC in CMS.

Flow of Events
1. Contractor enters the Full and Final NOPC in CMS.
2. RE enters response to the Full and Final NOPC in CMS.

Post-conditions
1. Response to the Full and Final NOPC verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. N/A

Business Rules
1. Response to contain at a minimum Agree / Disagree indicator.
2. Response can be added to the Full and Final NOPC (to minimize repetitive data entry) or entered as a separate document.
3. Comments or documentation to be linked to this specific Dispute Deliverable.
4. Once the Response is entered, notifications to designated parties are made by CMS.
5. Response must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
6. CMS to log when the Response is viewed by designated Contractor staff and when viewed, a receipt will be generated to the designated Caltrans staff and the Response can no longer be edited.
7. Tracking Template associated with Dispute updated by CMS with data to date.

Outstanding Issues
1. N/A
Questions

1. N/A

Forms

1. N/A
USE CASE: ENTER CONTRACTOR RESPONSE TO FULL AND FINAL NOPC RESPONSE (UC 14.18)

Brief Description
The Contractor responds to the Full and Final NOPC Response from the RE.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Construction Engineer
5. Deputy District Director
6. Claims Desk
7. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. RE Response to Full and Final NOPC in CMS.

Flow of Events
1. RE enters response to the Full and Final NOPC in CMS.
2. Contractor enters response to the RE response to Full and Final NOPC in CMS.

Post-conditions
1. Contractor Response to the RE Response to the Full and Final NOPC verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. See alt path for 14.1

Business Rules
1. Response to contain at a minimum Agree / Disagree indicator.
2. Response can be added to the RE Response to the Full and Final NOPC (to minimize repetitive data entry) or entered as a separate document.
3. Comments or documentation to be linked to this specific Dispute Deliverable.
4. Once the Response is entered, notifications to designated parties are made by CMS.
5. Response must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
6. CMS to log when the Response is viewed by designated Caltrans staff and when viewed, a receipt will be generated to the designated Contractor staff and the Response can no longer be edited.
7. Tracking Template associated with Dispute updated by CMS with data to date.
Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
A.15. CLAIMS

This functional area includes the following use cases:

- Enter Contractor Exceptions to PFE (UC 15.1)
- Create Claim Tracking Template (UC 15.2)
- Enter Overhead Audit Analysis (UC 15.3)
- Enter Initial Claim Findings Report (UC 15.4)
- Enter Initial Claim Findings Report Comments (UC 15.5)
- Enter Board of Review Meeting Request (UC 15.6)
- Update Initial Claim Findings Report (UC 15.7)
- Enter Board of Review Recommendation (UC 15.8)
- Enter District Director Determination of Claims Report (UC 15.9)
- Enter Contractor Response to Determination of Claims Report (UC 15.10)
- Enter Contractor Request for Arbitration Hearing (UC 15.11)
- Enter Arbitration Report (UC 15.12)

The use case flow on the following page depicts the process flow of the use cases within the functional area:
USE CASE: ENTER CONTRACTOR EXCEPTIONS TO PFE (UC 15.1)

Brief Description
The Contractor enters exceptions to the Proposed Final Estimate (PFE). This process is usually an extension of the Dispute Resolution process (UC 14.0). A dispute is considered a claim at the time of Proposed Final Estimate.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Construction Engineer
5. Deputy District Director
6. Headquarter (HQ) Reviewer
7. Claims Desk
8. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Contractor Full and Final NOPC in CMS if the exceptions are continuing NOPCs.
2. Contractor Written Notices and Protests in CMS if the exceptions are continuing Notices or Protests.

Flow of Events
1. Contractor receives PFE.
2. Contractor enters exceptions to PFE in CMS.

Post-conditions
1. Contractor exceptions to the PFE are verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. Overhead Claim
   a. Contractor enters Overhead Claim in CMS.

Business Rules
1. Exceptions must be, at a minimum, Categorized, Cost Estimated, and contain or reference Dispute Documentation to date if applicable.
2. Comments or documentation to be linked to this specific Claim Deliverable.
3. Once the Exception(s) are entered, notifications to designated parties are made by CMS.
4. Exceptions must be searchable by at least the Dispute / Claim Identifier, Entry Name, Dispute / Claim Type, and / or Entry Date.
5. CMS to log when the Exceptions are viewed by designated Caltrans staff and when viewed, a receipt will be generated to the designated Contractor staff and the Exception(s) can no longer be edited.
6. Tracking Template associated with Dispute updated by CMS with data to date.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. N/A
USE CASE: CREATE CLAIM TRACKING TEMPLATE (UC 15.2)

Brief Description
A tracking log of the Claim metrics, routing, and status is generated by CMS and can be updated at anytime by designated staff throughout the life of the Claim.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Claims Desk
5. Legal
6. Office of Audits and Investigation (OAI)
7. Office of Administrative Hearing (OAH)
8. Other Designated Caltrans Staff

Systems / Interfaces
1. OAH system possibly

Pre-conditions
1. An exception to the PFE with no corresponding Written Notice, Protest, or Initial NOPC in CMS (applies only to claims for overhead costs and administrative disputes that occur after issuance of the Proposed Final Estimate).

Flow of Events
1. Contractor enters the exception to the PFE, subject to criteria of applicable specifications.
2. CMS creates and links the Tracking Template to the Exception if it has no corresponding Written Notice, Protest, or Initial NOPC and it is a Claim.
3. Tracking Template updated by designated staff and / or CMS with information to date.

Post-conditions
1. Tracking Template in CMS and initiated with data to date.
2. Designated parties are notified.

Alternate Paths
1. N/A

Business Rules
1. CMS to create Tracking Template for Claim with fields to track Claim through Arbitration and including Audits if required.
2. Key deliverable dates will be applied based on timeline from Claim through Arbitration and including Audits if necessary.
3. Tracking Template to be configurable to allow reminder, warning, and confirmation notifications for deliverables and deliverable dates.
4. CMS to update the Status of a Claim when appropriate (e.g. Response Entered, Response Opened, etc.) and allow for manual update of Status when automatic CMS updates not possible or appropriate.
5. CMS to calculate the Metrics of a Claim when appropriate (e.g. Aging, Cost, Last Viewed, etc.) and allow for manual calculation of metrics when automatic CMS calculations not possible or appropriate.

6. CMS to update the Routing of a Claim when appropriate (e.g. RE, District Director, etc.) and allow for manual update of Routing when automatic CMS updates not possible or appropriate.

7. Template sections to be restricted to certain staff depending on Status (e.g. if in Arbitration, OAH staff and other designated staff can update the Arbitration data)

8. CMS should allow all data to be available in a hardcopy report in a format that can be sent and read electronically.

9. Template will have the flexibility (at the District) to at a minimum:
   a. Define Deliverables and Deliverable timelines
   b. Define Deliverable Dates
   c. Track Deliverable Dates
   d. Track Claim by Category and Type
   e. Calculate deliverable aging
   f. Claim Value Estimate
   g. Claim Status in timeline
   h. Claim Resolution (Dropped, Settled, Resolved, etc.)
   i. Allow Ad hoc queries / reports and the ability to save reports / queries for subsequent use.
   j. Allow search of state database of similar claim types and access determinations.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. N/A
USE CASE: ENTER OVERHEAD AUDIT ANALYSIS (UC 15.3)

Brief Description
The Division of Construction enters their analysis of the Claim for Overhead and the associated Audit after a review by the OAI.

Actors
1. Contractor
2. Consultant
3. Subcontractor (through the Contractor)
4. Resident Engineer (RE)
5. Construction Engineer
6. Deputy District Director
7. District Director
8. Office of Audits and Investigation (OAI)
9. Division of Construction
10. Claims Desk
11. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Claim for Overhead is in CMS.
2. Third party audit is submitted for review with Claim.

Flow of Events
1. Contractor submits Claim for Overhead.
2. Contractor commissions third party audit and submits audit with Overhead Claim.
3. Division of Construction and OAI review Overhead Claim and Audit.
4. OAI creates Final Audit Report.
5. Division of Construction enters Analysis / Recommendation in CMS.

Post-conditions
1. Division of Construction Analysis / Recommendation validated and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. N/A

Business Rules
1. Analysis Report can to be added to the Claim Findings Report or District Determination Report (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Dispute / Claim Deliverable.
3. Once the Analysis Report is entered, notifications to designated parties are made by CMS.
4. Analysis must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, and / or Entry Date.
5. CMS to log when the Analysis Report is viewed by designated Consultant or Caltrans staff and when viewed, a receipt will be generated to the designated Consultant or Caltrans staff and the Recommendation Report can no longer be edited.
6. Tracking Template associated with Dispute / Claim updated by CMS with data to date.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. Example 5-4.7 of the CM for documentation on the format of the Overhead Claim.
USE CASE: ENTER INITIAL CLAIM FINDINGS REPORT (UC 15.4)

Brief Description
The RE enters the Initial Claim Findings Report to further argue and refine the Caltrans Claim position.

Actors
1. Resident Engineer (RE)
2. Construction Engineer
3. Deputy District Director
4. District Director
5. Headquarter (HQ) Reviewer
6. Claims Desk
7. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. PFE exceptions in CMS.

Flow of Events
1. Contractor enters PFE exceptions in CMS.
2. RE enters Initial Claim Findings Report in CMS.

Post-conditions
1. Initial Claim Findings Report verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. N/A

Business Rules
1. Initial Claim Findings Report can be added to the Full and Final NOPC Response (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Claim Deliverable.
3. Once the Initial Claim Findings Report is entered, notifications to designated parties are made by CMS.
4. Initial Claim Findings Report must be searchable by at least the Dispute / Claim Identifier, Entry Name, Dispute / Claim Type, and / or Entry Date.
5. Initial Claim Findings Report can only be viewed by designated Caltrans staff.
6. Tracking Template associated with Dispute / Claim updated by CMS with data to date.

Outstanding Issues
1. N/A

Questions
1. N/A
Forms

1. Section 5-410 of the CM for documentation to support / complete the Initial Claim Findings Report.
2. Example 5-4.10 of the CM for documentation to support / complete the Initial / Updated Claim Findings Report.
USE CASE: ENTER INITIAL CLAIM FINDINGS REPORT COMMENTS (UC 15.5)

Brief Description
Designated Caltrans staff can review the Initial Claim Findings Report and add comments to the Initial Claim Findings Report including whether a Board of Review is warranted.

Actors
1. Resident Engineer
2. Construction Engineer
3. Deputy District Director
4. District Director
5. Headquarter (HQ) Reviewer
6. Claims Desk
7. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Initial Claim Findings Report in CMS.

Flow of Events
1. RE enters Initial Claim Findings Report in CMS.
2. Designated Caltrans Staff enter Initial Claim Findings Report Comments in CMS.

Post-conditions
1. Initial Claim Findings Report Comments verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. N/A

Business Rules
1. Initial Claim Findings Report can be highlighted with comments from multiple reviewers.
2. Comments to be tracked by Reviewer ID and / or multiple Reviewer IDs.
3. Comments can be developed into a separate report.
4. Reviewer ID(s) can be viewed with comment.
5. Comments to be color coded by Reviewer ID.
6. Tracking Template associated with Dispute / Claim updated by CMS with data to date.

Outstanding Issues
1. N/A

Questions
1. N/A
Forms

1. Example 5-4.3 of the CM for documentation to support / complete the review / comments on the Initial Claim Findings Report.
USE CASE: ENTER BOARD OF REVIEW MEETING REQUEST (UC 15.6)

Brief Description

Board of Review meeting is requested by the Board of Review Secretary.

Actors

1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Construction Engineer
5. Claims Desk
6. Board of Review
7. Board of Review Secretary
8. District Deputy Director
9. District Director
10. Other Designated Caltrans Staff

Systems / Interfaces

1. N/A

Pre-conditions

1. Initial Claim Findings Comments in CMS and they indicate a Board of Review is warranted.
2. Board of Review created.

Flow of Events

1. Contractor has not accepted any Caltrans responses / decisions to date concerning exceptions to PFE.
2. Initial Claims Findings Report Comments recommend Board of Review.
3. Board Secretary schedules Board of Review Meeting.
4. Designated parties are notified.

Post-conditions

1. Board of Review meeting request entered in CMS.
2. Designated parties are notified.

Alternate Paths

1. N/A

Business Rules

1. Receipt for Meeting Request to be generated by CMS.
2. Meeting Request acknowledgement by key parties to be tracked by CMS.
3. Meeting Request Follow Up / Warning Receipt to be generated by CMS.
4. Tracking Template associated with Dispute / Claim updated by CMS with data to date.
Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. Example 5-4.4 of the CM for documentation to request the Board of Review meeting.
USE CASE: UPDATE INITIAL CLAIM FINDINGS REPORT (UC 15.7)

Brief Description
The RE updates the Initial Claim Findings Report to further argue and refine the Caltrans Claim position for the Board of Review.

Actors
1. Resident Engineer (RE)
2. Construction Engineer
3. Deputy District Director
4. District Director
5. Board of Review
6. Board of Review Secretary
7. Headquarter (HQ) Reviewer
8. Claims Desk
9. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Initial Claim Findings Report in CMS.
2. Initial Claim Findings Report Comments in CMS.

Flow of Events
1. Board of Review Meeting is scheduled.
2. RE updates Initial Claim Findings Report in CMS.

Post-conditions
1. Updated Initial Claim Findings Report verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. N/A

Business Rules
1. Updated Initial Claim Findings Report can be added to the Initial Claim Findings Report (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Dispute / Claim Deliverable.
3. Once the Updated Initial Claim Findings Report is entered, notifications to designated parties are made by CMS.
4. Updated Initial Claim Findings Report must be searchable by at least the Dispute / Claim Identifier, Entry Name, Dispute / Claim Type, and / or Entry Date.
5. Updated Initial Claim Findings Report can only be viewed by designated Caltrans staff.
6. Tracking Template associated with Dispute / Claim updated by CMS with data to date.
Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. Section 5-412 of the CM for documentation to support / complete the Iterative Claim Findings Report.
USE CASE: ENTER BOARD OF REVIEW RECOMMENDATION (UC 15.8)

Brief Description
The Board of Review enters their Recommendation Report after the Board of Review meeting.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer
4. Board of Review
5. Board of Review Secretary
6. Construction Engineer
7. Deputy District Director
8. District Director
9. Headquarter (HQ) Reviewer
10. Claims Desk
11. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Board of Review Meeting scheduled in CMS.

Flow of Events
1. Board of Review Meeting scheduled.
2. Board of Review gathers documentation to date including latest Claim Findings Report.
3. Board of Review meeting held.

Post-conditions
1. Board of Review Recommendation Report validated and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. N/A

Business Rules
1. Recommendation Report can be added to the Claim Findings Report (to minimize repetitive data entry) or entered as a separate document.
2. Recommendation to use Dispute / Claim Identifier associated with Dispute to allow it to be linked to the Dispute.
3. Comments or documentation to be linked to this specific Dispute Deliverable.
4. Once the Recommendation Report is entered, notifications to designated parties are made by CMS.
5. Recommendation must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, and / or Entry Date.
6. CMS to log when the Recommendation Report is viewed by designated Contractor or Caltrans staff and when viewed, a receipt will be generated to the designated Contractor or Caltrans staff and the Recommendation Report can no longer be edited.
7. Tracking Template associated with Dispute / Claim updated by CMS with data to date.

Outstanding Issues

1. N/A

Questions

1. N/A

Forms

1. Section 5-411 of the CM for documentation to support / complete the Board of Review Recommendation Report.
USE CASE: ENTER DISTRICT DIRECTOR DETERMINATION OF CLAIMS REPORT
(UC 15.9)

Brief Description
The District Director enters the Determination of Claims to finalize the Caltrans’ Claim position.

Actors
1. Resident Engineer (RE)
2. Construction Engineer
3. Deputy District Director
4. District Director
5. Board of Review
6. Headquarter (HQ) Reviewer
7. Claims Desk
8. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Claim Findings Report in CMS.
2. Claim Findings Report Comments in CMS.

Flow of Events
1. Board Secretary enters the Determination of Claims Report in CMS.

Post-conditions
1. Determination of Claims Report verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. Board of Review Recommendation may be pre-condition if Claim Findings Report Comments recommend a Board of Review.

Business Rules
1. Determination of Claims Report can be added to the Claims Findings Report (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Dispute / Claim Deliverable.
3. Once the Determination of Claims Report is entered, notifications to designated parties are made by CMS.
4. Determination of Claims Report must be searchable by at least the Dispute / Claim Identifier, Entry Name, Dispute / Claim Type, and / or Entry Date.
5. CMS to log when the Determination of Claims Report is viewed by designated Contractor staff and when viewed, a receipt will be generated to the designated Caltrans staff and the Determination of Claims Report can no longer be edited.
6. Tracking Template associated with Dispute / Claim updated by CMS with data to date.

**Outstanding Issues**

1. N/A

**Questions**

1. N/A

**Forms**

1. Section 5-413 of the CM for documentation to support / complete the Determination of Claims Report.
2. Example 5-4.11 of the CM for documentation to support / complete the Determination of Claims Report.
USE CASE: ENTER CONTRACTOR RESPONSE TO DETERMINATION OF CLAIMS REPORT (UC 15.10)

Brief Description

The Contractor responds to the Determination of Claims Report from the District Director.

Actors

1. Contractor
2. Subcontractor (through the Contractor)
3. Resident Engineer (RE)
4. Construction Engineer
5. Deputy District Director
6. Headquarter (HQ) Reviewer
7. Claims Desk
8. Office of Administrative Hearing (OAH) - File for Arbitration
9. Other Designated Caltrans Staff

Systems / Interfaces

1. OAH system possibly

Pre-conditions

1. Determination of Claims Report in CMS.

Flow of Events

1. Contractor enters response to Determination of Claims Report in CMS.

Post-conditions

1. Contractor Response to the Determination of Claims Report verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths

1. N/A

Business Rules

1. Response to contain at a minimum Agree / Disagree indicator.
2. Response can be added to the Determination of Claims Report (to minimize repetitive data entry) or entered as a separate document.
3. Comments or documentation to be linked to this specific Dispute Deliverable.
4. Once the Response is entered, notifications to designated parties are made by CMS.
5. Response must be searchable by at least the Dispute Identifier, Entry Name, Dispute Type, Disputed Event, and / or Entry Date.
6. CMS to log when the Response is viewed by designated Caltrans staff and when viewed, a receipt will be generated to the designated Contractor staff and the Response can no longer be edited.
7. Tracking Template associated with Dispute / Claim updated by CMS with data to date.
Outstanding Issues
   1. N/A

Questions
   1. N/A

Forms
   1. N/A
USE CASE: ENTER CONTRACTOR REQUEST FOR ARBITRATION HEARING (UC 15.11)

Brief Description
Contractor requests an Arbitration Hearing.

Actors
1. Contractor
2. Subcontractor (through the Contractor)
3. Claims Desk
4. Deputy District Director
5. District Director
6. Division of Construction
7. Legal
8. Office of Administrative Hearing (OAH)
9. Other Designated Caltrans Staff

Systems / Interfaces
1. OAH system possibly

Pre-conditions
1. Contractor response to the Determination of Claims Report does not accept all or part of the report findings.

Flow of Events
1. Contractor does not accept all or part of the Determination of Claims Report.
2. Contractor requests Arbitration Hearing.
3. Designated parties are notified.

Post-conditions
1. Arbitration Hearing request entered in CMS.
2. Designated parties are notified.

Alternate Paths
1. N/A

Business Rules
1. Receipt for the Arbitration Hearing Request to be generated by CMS.
2. Arbitration Hearing Request acknowledgement by key parties to be tracked by CMS.
3. Arbitration Hearing Request Follow Up / Warning Receipt to be generated by CMS.
4. Tracking Template associated with Dispute / Claim updated by CMS with data to date.

Outstanding Issues
1. N/A

Questions
1. N/A
Forms

1. N/A
USE CASE: ENTER ARBITRATION REPORT (UC 15.12)

Brief Description
The Office of Administrative Hearing enters select portions of the Arbitration Decision.

Actors
1. Contractor
2. Subcontractor (through Contractor)
3. Resident Engineer
4. Construction Engineer
5. Deputy District Director
6. District Director
7. Office of Administrative Hearing (OAH)
8. Legal
9. Headquarter (HQ) Reviewer
10. Claims Desk
11. Other Designated Caltrans Staff

Systems / Interfaces
1. N/A

Pre-conditions
1. Arbitration Hearing held

Flow of Events
1. OAH enters select portions of the Arbitration Report in CMS.

Post-conditions
1. Select Arbitration Report data verified and stored in CMS.
2. Designated parties are notified.

Alternate Paths
1. N/A

Business Rules
1. Arbitration Report data can be added to the Determination of Claims Report (to minimize repetitive data entry) or entered as a separate document.
2. Comments or documentation to be linked to this specific Dispute / Claim Deliverable.
3. Once the Arbitration Report data is entered, notifications to designated parties are made by CMS.
4. Arbitration Report data must be searchable by at least the Dispute / Claim Identifier, Entry Name, Dispute / Claim Type, and / or Entry Date.
5. CMS to log when the select Arbitration Report data is viewed by designated Contractor or Caltrans staff and when viewed, a receipt will be generated to the designated Contractor or Caltrans staff and the Arbitration Report data can no longer be edited.
6. Tracking Template associated with Dispute / Claim updated by CMS with data to date.
Outstanding Issues
  1. N/A

Questions
  1. N/A

Forms
  1. N/A
Process: Claims (1 of 4) – PFE and Claim Findings

Contractor

For Overhead Claims To Claims 3 of 4 - Overhead Claims

For Internal Caltrans Use Only