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The purpose of this manual change transmittal is to announce updates and corrections to the Caltrans *Construction Manual*. Please note the updates, and print new sections for your manual as needed. Updated sections are published on <http://www.dot.ca.gov/hq/construc/constmanual/> and are indicated by the date listed in the right-hand column on that page. Content changes, not including edits for clarity, are enumerated:

Section 2-1, “Safety”

This update introduces electronic applications for filing Form PM-S-0110, “Safety Meeting Report,” to document tailgate safety meetings, and Form CEM-0606, “Construction Safety Checklist.” Use of the electronic forms streamlines monitoring and verifying compliance with safety regulations.

Section 5-1, “Project Records and Reports”

The changes update descriptions of Form CEM-0606, “Construction Safety Checklists,” and Form PM-S-0110, “Safety Meeting Report,” to describe how the electronic forms are filed in project records in FalconDMS.

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Section 1 Safety

2-101 General

Employers must comply with occupational safety and health standards established by federal and state laws. State laws require all employers to provide a safe place of employment reasonably free from danger to life or health and to maintain a written Injury and Illness Prevention Program (IIPP).

The *Caltrans Safety and Health Manual* is the official Caltrans IIPP and can be found on the Office of Health and Safety's intranet page: Employee Safety Manual Online.

The *Caltrans Safety and Health Manual (Safety Manual)* lists safety policies and procedures, provides a centralized reference to operational safety advisories, and standardizes procedures for reporting employee occupational injuries, vehicular accidents, and claims against Caltrans. The *Construction Code of Safe Practices (COSP)*, along with the *Caltrans Safety Manual*, defines standard safety practices for employees involved with inspecting construction activities and operations. The Construction COSP is applicable only to Caltrans personnel performing duties in accordance with their job description. The contractor is responsible for means and methods to complete the work and is required to provide for public safety and to provide safe access to Caltrans employees. Contractors and subcontractors follow the prime contractor's IIPP and COSP. If a subcontractor's IIPP and COSP are more stringent, the subcontractor must follow its own IIPP and COSP.

Federal Highway Administration requirements, the *Standard Specifications*, and contract standard special provisions establish compliance with safety regulations as part of a contract requirement.

2-102 Duties and Responsibilities

Districts are responsible for safety on Caltrans construction projects.

2-102A District Deputy Director for Construction

The district deputy director for Construction should confirm that funding is adequate to maintain a training program to acquaint Caltrans Construction personnel with the basics of construction safety. This training must be a minimum of 4 hours per employee per year and be included in the district's annual training plan. Safety training includes orientation for employees when they receive their first construction assignment. Employees returning to Construction following an absence of 5 years or more should also receive the safety orientation.

Recent California laws have added a responsibility requiring supervisors to make sure that subordinates are implementing all safety requirements and are provided with the tools and the training necessary to protect them from being exposed to any potentially unsafe condition.

2-102B District Construction Safety Coordinator

The district's construction safety coordinator (CSC) acts as a technical advisor to Construction field personnel. The CSC is responsible for the following:

- Understanding Caltrans' safety policies; contract specifications; and the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA), California Code of Regulations, Title 8 (8 CCR), "Industrial Relations." Cal/OSHA is the state enforcing agency for safety regulations.
- Making unannounced site visits to ongoing construction projects on a routine and rotating basis. The CSC should also respond promptly to requests from the resident engineer or other Caltrans staff to visit projects to review project safety concerns.
- Collaborating with the resident engineer about specialized contract work, such as full freeway closures and unusual or complex operations, including blasting and confined space operations. The CSC should visit the project periodically to observe the contractor's overall efforts, answer questions, or look at specific areas when the engineer requests it. The frequency of the visits will depend upon the type and complexity of the work.
- Writing a safety review report using **the electronic application to document on Form CEM-0606, "Construction Safety Checklists,"** and either Form CEM-4501, "Resident Engineer's Daily Report Asst. Resident Engineer's Daily Report," or Form CEM-4601, "Assistant Resident Engineer's Daily Report," each visit to the project site, and giving the resident engineer the original safety review report and copies to the construction engineer and the construction manager for review and follow-up. **The completed Form CEM-0606 is filed automatically from the application to the project folder in FalconDMS**
- Being the district's primary contact with the Division of Construction safety engineer and the local Cal/OSHA representative, except for emergencies involving imminent hazards. Refer to Section 2-103A, "Imminent Hazards," of this manual for more information. Maintain regular communication with local Cal/OSHA representatives.
- Administering the district's construction safety training program, structured to meet district needs as mentioned in Section 2-102A, "District Deputy Director for Construction," of this manual, including the mandatory heat illness prevention training required annually for all field staff and the mandatory hazard communication training offered every 2 years.
- Serving as advisor for the construction safety portion of the preconstruction conference, and to the resident engineer on safety related topics.

2-102C Construction Engineer

The construction engineer should review construction projects to verify that the resident engineer is monitoring the contractor's construction safety program. The construction engineer should review the CSC's safety review report and confirm that

the resident engineer addresses, adequately closes, and documents closure of items mentioned in the safety review report.

Construction engineers are responsible for the performance of employees under their supervision. They provide them with the training, personal protective equipment, and tools necessary to protect themselves from hazards. As part of the training, construction engineers should stress that under no circumstances should any Caltrans employees instruct the contractor how to correct a deficiency, either orally or in writing. The construction engineer must **make sure** a project specific Code of Safe Practices is developed for each project.

Construction engineers advise, correct, and reprimand employees for safety violations and should document their reviews of employee safety programs as required by the *Safety Manual*.

2-102D Resident Engineer

The resident engineer verifies that the contractor complies with all aspects of the contract, including applicable safety orders found in the 8 CCR. To accomplish this, do the following:

- Identify unsafe conditions and the specific contract provisions or 8 CCR regulations involved.
- Assign a project safety coordinator.
- Involve the district CSC in specialized contract work such as full freeway closures, blasting operations, confined space operations, multi-crane picks of large loads, or other unusual or complex contractor operations. Consult with the CSC to interpret Cal/OSHA regulations.
- Inform the CSC how unsafe conditions identified in the safety review report were resolved. Complete written documentation of the review and abatement results and file with other project documents.

Complete a project safety review report every week and file it in Category 6, "Safety," of the project records. Use **the application to document** Form CEM-0606, "Construction Safety Checklists," and either Form CEM-4501, "Resident Engineer's Daily Report Asst. Resident Engineer's Daily Report," or Form CEM-4601, "Assistant Resident Engineer's Daily Report," to support the project safety review report.

- Using contract administration procedures, verify that the contractor complies with Caltrans contract requirements and 8 CCR.
- Develop a project-specific COSP document for Caltrans employees to address all operations in the project for each contract and all contractor operations. Make it accessible to workers in the field and confirm that all project personnel have read and signed it. Keep the COSP in a conspicuous location at the job site office, and a copy in the Category 6, "Safety," of the project files. Refer to Section 2-106A, "Caltrans Division of Construction Code of Safe Practices," of this

manual for additional guidance on developing a COSP. A baseline COSP document is on the Division of Construction website:

<https://dot.ca.gov/programs/construction/safety-traffic>

Discuss project safety at the preconstruction conferences, use Forms CEM-0604, “Project Safety Review or Meeting,” and CEM-0606, “Construction Safety Checklists,” **using the electronic application, to** document safety discussions in the project files for the duration of the project. Cover at least the following items:

1. Address new Cal/OSHA regulations that might be applicable to the contract.
 2. Discuss requirements for contractors to make available the safety data sheets for chemicals or construction materials used on the construction site. Caltrans employees must be able to assess their potential risk from contractor use of products requiring safety data sheets. Verify that Caltrans employees have safe access to safety data sheets, which may require provisions for eyewash stations, respirators, or other devices.
 3. Discuss other safety inspection items that may pertain to the contract, such as blasting operations, work in confined spaces, use of personal protective equipment or backup alarms, traffic control, shoring and tunneling, and access to elevated work.
 4. Discuss known public health conditions and the contractor’s obligation to contact the local public health department pursuant to Section 7-1.02K(6), “Occupational Safety and Health Standards,” of the *Standard Specifications*.
- Before work is started, confirm that contractors do the following:
 1. Submit an IIPP and the project Code of Safe Practices to the resident engineer, as required by 8 CCR 1509, “Injury and Illness Prevention Program.”
 2. Submit permits required before starting certain work, such as: trenching or excavating 5 feet or deeper in which any person is required to descend; demolishing more than 36 feet in height; erecting falsework and scaffolding in excess of 36 feet in height; working in confined spaces; or mining and tunneling.
 3. Notify the regional Underground Service Alert. Refer to Section 4-1902A, “Roadway Excavation,” of this manual.
 4. Submit all the contingency plans before starting the construction activities.
 - During the course of work, verify that contractors do the following:
 1. Report to the resident engineer any close call, serious injury or illness, disabling or fatal incidents.
 2. Notify the resident engineer immediately if Cal/OSHA arrives on the project for a site visit. As the site owner, Caltrans staff needs to participate in all Cal/OSHA site visits.

2-102E Project Safety Coordinator

The resident engineer may delegate safety responsibilities to an assistant resident engineer who will act as the project safety coordinator. This delegated work will usually be in addition to other assigned duties but may be full time on large contracts. If there is significant structures work, the resident engineer may need to coordinate with the structures representative to have a structures project safety coordinator assigned for the structures specialty work. Also, if there is significant electrical work, the resident engineer may need to coordinate with the electrical engineer. To assure project safety, have an electrical safety coordinator assigned for the electrical specialty work.

The project safety coordinator acts as a safety advisor to Caltrans project personnel. The project safety coordinator should monitor and document contractor compliance with safety requirements, keep the resident engineer informed, and do the following:

- Monitor ongoing operations on the job site daily.
- Inform the contractor, orally and in writing, of any operation or activity that does not comply with Caltrans contract requirements or Cal/OSHA regulations. Provide reference to the *Standard Specifications* or the specific regulation violated. Use the electronic application to prepare Form CEM-0606, “Construction Safety Checklists,” to find the appropriate reference. These checklists are on the Division of Construction website:

<https://dot.ca.gov/programs/construction/forms>

- Prepare a weekly project safety review report using Form CEM-0606 application and either Form CEM-4501, “Resident Engineer’s Daily Report Asst. Resident Engineer’s Daily Report,” or Form CEM-4601, “Assistant Resident Engineer’s Daily Report,” and file it in Category 6, “Safety,” of the project records.
- Consult with the CSC on project safety questions.

2-102F Project Staff

Caltrans does not intend that the resident engineer and the project safety coordinator do all of the monitoring of the contractor’s construction safety activities. All construction personnel should consider the safety of the operations in conjunction with their normal inspections and to confirm that they have safe access to perform their duties. Inspectors—closest to and most familiar with the field operations—should do the following:

- Be familiar with construction zone traffic management, Cal/OSHA regulations, Caltrans safety policies, and specifications. Use the application to prepare Form CEM-0606 to monitor the contractor’s compliance with safety regulations and specifications.
- Routinely monitor, document, and discuss contract safety requirements with the contractor.
- Request assistance from the project safety coordinator or the district CSC if uncertain about a regulation’s requirements.

2-103 Managing Safety Hazards

In carrying out Caltrans' responsibilities for verifying safety compliance as a contract requirement, use the following guidelines.

2-103A Imminent Hazards

Imminent hazards are work conditions that, if not corrected, could result in an incident causing severe or permanently disabling injury, or death. When an imminent hazard is found or the contractor permits repeated occurrences of a hazardous condition, the Caltrans representative should take the following steps:

- Advise the contractor orally of the condition and the need for correction.
- Remove all Caltrans employees from the hazardous exposure.
- If the contractor complies, document the incident in the project's safety review report with appropriate references in Form CEM-0606, "Construction Safety Checklists," **by using the application** and either Form CEM-4501 "Resident Engineer's Daily Report Asst. Resident Engineer's Daily Report," or Form CEM-4601, "Assistant Resident Engineer's Daily Report." Document the unsafe work condition, discussions with the contractor, and how and when the unsafe condition was corrected.
- If the contractor does not comply, temporarily suspend the affected operation. Confirm the suspension order in writing to the contractor.

Whenever it is necessary to suspend a contractor's operation, notify the CSC, resident engineer, and the construction engineer of the hazardous condition and the actions taken. Verify that all contractual remedies to address the contractor's safety issues have been exhausted and documentation is fully prepared and filed before considering notifying Cal/OSHA. Involve the CSC as a checker in the process to verify nothing was overlooked. Get permission from the construction manager before calling Cal/OSHA. These actions will limit potential multi-employer liability against Caltrans. Notify the Division of Construction safety engineer about the actions taken. Place the safety review report, including all details leading to the suspension, and copies of orders in Category 6, "Safety," of the contract files.

2-103B Serious Hazards

Serious hazards are work conditions that, if not corrected, could result in a disabling injury and possibly death, or develop into an imminent hazard. When a serious hazard is found, the Caltrans representative should take the following steps:

- Advise the contractor orally of the condition and the need for timely correction. If appropriate, set a compliance deadline.
- Remove all Caltrans and consultant employees from the hazardous exposure.
- If the contractor fails to provide timely correction, consider ordering a temporary suspension of the affected operation. Confirm the suspension order in writing to the contractor. Notify the resident engineer.

- Document the incident in the project’s safety review report with appropriate references in the resident engineer’s daily report. Document the unsafe work condition, discussions with the contractor, and how and when the unsafe condition was corrected.

2-103C Minor or Nonserious Conditions

Minor or nonserious conditions are ones that could result in minor injuries or might be classified as minor threats to health. When a nonserious or minor condition is found, the Caltrans representative should take the following steps:

- Advise the contractor orally of the condition and the need for correction.
- Remove all Caltrans and consultant employees from the hazardous exposure.
- Document the incident in the project’s safety review. Document the unsafe work condition, discussions with the contractor, and how and when the unsafe condition was corrected.
- If the contractor fails to correct the condition or permits a recurrence, notify the resident engineer and CSC.

2-103D Corrective Actions for Safety Hazards

Imminent and serious hazards may require immediate corrective actions; these actions must be taken immediately to correct unsafe work conditions or deficiencies. If the corrective actions cannot be taken immediately, discuss with the contractor how the unsafe condition will be corrected and a timeline for taking action; corrective actions are still to be completed as soon as possible. To confirm the corrective actions were taken, verify with the contractor’s project safety representative how and when the unsafe condition was corrected on the next scheduled safety review, as discussed in Section 2-109B, “Project Safety Reviews During the Course of the Work.” A follow-up review may be needed to confirm these corrections.

2-104 Division of Occupational Safety and Health

This section provides information about the organization of Department of Industrial Relations, Cal/OSHA, its enforcement powers, and its inspections.

2-104A Authority and Responsibility

Caltrans enforces contract requirements, not safety orders. The law requires Cal/OSHA to enforce safety orders and promote safe workplaces and practices. Cal/OSHA achieves this function through four independent units— a rule-making function, an enforcement function, an independent appeals board, and a Consultation Services Branch, described as follows:

- The Occupational Safety and Health Standards Board (Standards Board) adopts, amends, and repeals safety orders. Both state and federal law require that the safety orders be no less restrictive than federal Occupational Safety and Health safety orders.

- The Division of Occupational Safety and Health enforces the safety orders as adopted by the Standards Board by issuing citations, orders, and notices; by proposing civil penalties; and by specifying the abatement changes that must be made to correct an unsafe condition.
- Citations issued by Cal/OSHA for violations may be appealed to the Occupational Safety and Health Appeals Board for a hearing and, in rare instances, appealed to a Superior Court.
- The Consultation Services Branch provides consultative assistance to employers and employees through services including on-site visits, remote consultation, educational outreach, and partnership programs. Please be advised that the CSC must be consulted, because the CSC is the single point of contact with Cal/OSHA.

To allow Cal/OSHA to accomplish its mission, the California Labor Code gives Cal/OSHA authority to enter and inspect any place of employment to verify that the contractor is observing safe conditions and practices. If necessary, this Right of Entry can be enforced with a warrant.

2-104B Citations and Civil Penalties

If Cal/OSHA uncovers and documents unsafe conditions or work practices, it may issue citations. The severity of the violations cited determines the civil penalties, and the penalty amount is based on procedures established in the regulations. Public agencies are not exempt from these penalties.

Violations—classified as regulatory, general, serious, willful, or repeat—result in monetary penalties. Failing to abate hazards or making false statements also mandates penalties.

Under the multi-employer liability clause, Cal/OSHA has authority to cite all employers who are observed as having employees exposed to a hazard at a multi-employer worksite. Cal/OSHA identifies an exposing, creating, controlling, or correcting employer as defined in Section 2-104C, “Classes of Employers,” in this manual, for each unsafe condition found. It bases employers’ degree of responsibility on their awareness of the condition, the foreseeability of the condition, and reasonable steps they take to protect employees.

In addition to receiving civil penalties, both Caltrans and contractor managers can be held criminally responsible. To be held criminally responsible, the manager must knowingly or negligently allow a serious violation, repeatedly violate safety orders, or directly refuse to correct a known unsafe condition. Criminal penalties may include 6 months to 1 year in jail and fines.

Occasionally, Cal/OSHA will issue an informational memorandum when it encounters a condition or potential condition to which no employee has been exposed, but if an employee were to be exposed, a safety violation would exist. Cal/OSHA treats all informational memorandums as willful violations.

2-104C Classes of Employers

California Department of Industrial Relations recognizes four types of employers, any of which may be cited by its Cal/OSHA for safety violations. The classification may result in more than one employer cited for the same violation. The California Labor Code identifies these employer categories:

Exposing employer—the employer whose employees were exposed to the hazard.

Creating employer—the employer who created the hazard.

Controlling employer—the employer who was responsible by contract or through actual practice for the safety and health conditions on the worksite, the one who had the authority for verifying that the hazardous condition was corrected.

Correcting employer—the employer responsible for correcting the hazard.

On a standard contract put out to bid with plans and specifications, the prime contractor is the controlling employer in accordance with Section 7-1.02K(6)(a), “General,” of the *Standard Specifications*.

Caltrans may be the exposing employer if Cal/OSHA observes that Caltrans employees were exposed to a hazard and the employees failed to remove themselves from exposure to the hazard or ask the contractor for correction to provide safe access to the work. Addressing and documenting safety and communicating it to the contractor would help create a common understanding, emphasize Caltrans’ priority, and help in protecting the state from being cited under any of the four employer categories.

2-104D Procedures During Division of Occupational Safety and Health Inspections

This section describes what takes place during a Cal/OSHA inspection and what resident engineers and their assistants should do while it is carried out.

2-104D (1) Elements of a Cal/OSHA Inspection

Every Cal/OSHA inspection has three elements: the opening conference, the walk-through inspection, and the closing conference.

Opening conference—The Cal/OSHA inspector requests the highest level of onsite management, makes introductions, and states the reason and purpose of the inspection. The inspector asks questions about the employer, such as the size of the organization, number of employees on site, and employee addresses and their phone numbers. The inspector may also ask about the employer’s IIPP, emergency contact numbers, and the addresses of the medical facilities closest to the job site. The inspector asks the employer for permission to make a walk-through site inspection and invites the employer to join the inspection.

Walk-through inspection—The inspector will tour the site observing the work in progress, condition of the site, and work practices followed. The inspector may interview employees about their training, work procedures, and protective equipment. During the inspection, the inspector may take photographs and measurements. If it is a post-incident investigation, the inspector identifies and

interviews witnesses and may request contact information such as name, address, and phone number. The inspector notes violations observed, findings that will probably result in a citation during the closing conference.

Closing conference—After completing the walk-through inspection, the inspector meets with managers, supervisors, and employee representatives to discuss the violations and proposed citations. The inspector bases citations on the observations and on manager, supervisor, and employee statements. The inspector may hold this conference immediately after the walk-through inspection or defer it. Although the closing conference is usually conducted in person, the inspector may conduct it on the phone.

2-104D (2) Participation in the Inspection

As a matter of policy, Caltrans cooperates and participates with Cal/OSHA. Caltrans employees are not required to make any statement that may be harmful to their interests or those of Caltrans. If uncomfortable with answering any questions, politely decline. In the event of an inspection, do the following:

Opening conference—Notify the CSC and the construction engineer that Cal/OSHA is planning to inspect. If the CSC is not available, notify the district safety officer of the pending inspection. If the CSC or safety officer can arrive in a reasonable length of time, request a delay of the walk-through inspection until their arrival. The resident engineer or representative should participate in the inspection, and the construction engineer should also participate.

Walk-through inspection—Participate in and document the inspection. Record what areas were inspected, who was interviewed, and what violations the Cal/OSHA inspector mentioned. For Caltrans records, take the same photographs and make the same measurements as the Cal/OSHA inspector.

Closing conference— Participate in the closing conference. The construction engineer or another representative should also participate. If the district safety officer or CSC is not present, insist that the closing conference be delayed until one of them can attend. If the inspector proposes citations, remain open and noncommittal.

2-104D (3) Procedures if Citations are Received

If you receive citations by personal delivery or mail, take the following actions:

- Notify the district safety officer, CSC, and construction engineer that a citation has been served.
- Fax a copy of the citation to the Office of Employee Health and Safety in the Division of Safety and Management Services at (916) 227-2639 or email a copy of the citation to:

Safety.Suggestions.HQ@dot.ca.gov

- For citations related to structure work, confirm that structure representatives notify Structure Construction in the Division of Engineering Services.

Work with the district safety officer, CSC, and the Office of Health and Safety in the Division of Safety and Management Services to resolve citations. If necessary, arrange for legal support.

2-105 Emergency Contracts

Emergency contracts, discussed in Section 5-501, “General,” of this manual, present additional safety concerns for Caltrans. Cal/OSHA could consider Caltrans as the controlling employer for emergency work, because Caltrans is defining the work and agreeing to the means and methods to complete the work.

~~Section 5-506, “Initial Stages of the Project,” of this manual discusses documenting all discussions regarding safety.~~

~~Section 5-508, “Prosecution of the Work,” of this manual discusses prosecution of the work and requires verification that the proposed means and methods are safe and effective. More emergency work guidance is in *Emergency Work Guidance*.~~

2-106 Caltrans-Specific Safe Practices

Every employee has the responsibility to be informed of and follow the specific policies and practices discussed in the *Safety Manual*.

2-106A Caltrans Division of Construction Code of Safe Practices

California Code of Regulations, Title 8, Section 1509, (8 CCR 1509) “Injury and Illness Prevention Program,” requires that every employer adopt a written COSP. Verify that one is prepared for every project. Verify that it includes project-specific items. If unique contract safety items are not addressed in the COSP, consult with the CSC to have additional COSPs prepared for the project and included in the project file. If the contractor has developed a project-specific COSP item that they request Caltrans amend into the Caltrans COSP, consult with the CSC. The project file should contain documentation that all employees sign to acknowledge they have read and understood the COSP.

2-106B Tailgate Safety Meetings

Cal/OSHA safety orders require tailgate or toolbox safety meetings. As stated in 8 CCR 1509, the meetings must be held at least once every 10 working days.

Construction engineers, resident engineers **or designated personnel** should conduct a tailgate safety meeting with all employees who are new to the project to discuss the project and potential safety issues that might arise because of contractor operations.

Tailgate safety meetings should be project-specific. Topics to discuss might include: upcoming work; specialty work, such as crane critical picks and confined space entry; review of incidents; or the most recent project safety review report. Record the meetings **on the Tailgate Safety Meeting electronic application and** include all the attendees **on Form PM-S-0110, “Safety Meeting Report.”**

Under Cal/OSHA safety orders, contractors and subcontractors are required to hold their own tailgate safety meetings for the benefit of their own employees.

Section 02.05, "Tailgate Safety Meetings for Field Personnel," of the *Safety Manual* contains instructions for tailgate meetings. Follow that section and district policy.

2-106C Safety Stand-down

This section defines requirements for implementing a safety stand-down based on a significant recent safety incident. The safety stand-down will include Caltrans and optional participation by contractor personnel at job sites to improve the safety culture and awareness. The severity of a safety incident will establish the criteria for determining which jobs require the stand-down and who participates. The stand-down may be at the affected job site or extend to all going jobs throughout the district, region, or state. Additionally, safety stand-downs encourage field personnel to stop work, focus on safe work practices, and to reaffirm their commitment for incorporating safe work practices into daily work habits and operations.

2-106C (1) Introduction and Purpose

Caltrans is committed to protecting the safety and health of its employees and improving productivity through prevention of illness and injury. A safety stand-down is implemented as part of improving safety communication under the Caltrans Injury and Illness Prevention Program (IIPP). The stand-down's goal is to raise awareness among Caltrans Construction staff, contractors, and contractor employees on incident prevention and working to enhance safety to eliminate injuries and fatalities in construction work zones. The term "safety stand-down" is used in construction to describe the temporary work stoppage to inform job-site workers of recent safety issues that have resulted in an injury, fatality, or a hazard at a construction job site.

The safety stand-down must be conducted after an incident results in a serious injury or fatality involving the public, a contractor, a consultant, or Caltrans staff. Unlike the required tailgate safety meeting, which is held at least every 10 working days, the safety stand-down must be held that day or the next work shift, to prevent a similar subsequent incident from posing a potential hazard to the workers or the traveling public.

The triggering incident must be reported upward through the management chain of command for determination and implementation of a safety stand-down in the district, region or statewide. When a better understanding of root cause of the incident is known, a follow up discussion or additional stand-down may be required to inform personnel of needed operational changes.

2-106C (2) Reporting Level

Depending on the incident type, a safety stand-down is to be conducted and reported at the following levels:

2-106C (2a) Project

At the project level, safety stand-down is conducted after the occurrence of non-fatal recorded safety incident on the project. A non-fatal recorded safety incident includes serious injury involving Caltrans staff, contractor's employee, consultant employee, member of the law enforcement or member of the public in the project work zone that required any in-patient hospitalization, even if to be discussed during the next shift or when understanding of the root cause is known at the project level. As described in Chapter 2, "Safety Meetings," of the *Safety Manual*, "close-call incidents are incidents that did not result in contact, injury, or damage." Close calls are reported via the mobile app for the Major Construction Incident Notification form using a smart phone or tablet and then tracked in a database where information is collected and stored.

Direction Level: The resident engineer in responsible charge has the authority to require project staff to conduct the safety stand-down and decide the appropriate next course of action at the project level. The resident engineer may consult with the construction engineer before conducting a safety stand-down.

2-106C (2b) District or Region

A district or regionwide safety stand-down is required after a fatality involving a member of the public in a work zone.

Direction Level: The deputy district director of Construction has the authority to direct project staff within the district or region to conduct a safety stand-down and decide the appropriate next course of action at the district or region level.

2-106C (2c) Statewide

A statewide safety stand-down is triggered by the following:

- Work zone fatality involving contractor and consultant, or both
- Work zone fatality involving law enforcement
- Work zone fatality involving Caltrans employees

Direction Level: The Division of Construction chief has the authority to direct all Construction staff throughout the state to conduct a safety stand-down and to decide the appropriate next course of action at the statewide level.

2-106C (3) Contractor's Participation, Work Suspension, and Participation from Law Enforcement

Depending on the incident type, each safety stand-down has different participants and duration. Participation by the contractor staff is voluntary. The suspension of time to participate is a mutually agreed suspension of time as defined in "working day" definition 2.2.3 in Section 1-1.07B, "Glossary," of the *Standard Specifications*.

Law enforcement partners, such as California Highway Patrol, must be invited to participate in the safety stand-down when triggering incident involves member of the law enforcement.

2-106C (4) Documentation

Use Caltrans' [Tailgate Safety Meeting electronic application](#) and refer to Section 02.07, "How to Document Safety Meetings" of the *Safety Manual*, to document the safety stand-down as a safety meeting [on the Caltrans Form PM-S-0110, "Safety Meeting Report."](#) Find the *Caltrans Safety Manual* at:

<https://hs.onramp.dot.ca.gov/employee-safety-manual-online>

2-106D High-Visibility Garment

The following are required for all Caltrans staff during field operations:

- For daytime use, a minimum of a Class 2 garment is required. Its attached label must identify the garment as Class 2 and should clearly state that it is American National Standard Institute (ANSI)/International Safety Equipment Association (ISEA) 107- 2004, or equivalent subsequent revisions.
- During hours of darkness, a Class 3 garment is required. A Class 3 garment may be used in the daytime. The following options meet Class 3 requirements:
 1. A Class 3 "sleeved" vest with the ANSI/ISEA 107-2004, or equivalent subsequent revisions, Class 3 label.
 2. A Caltrans rain jacket with an attached ANSI/ISEA 107-2004, or equivalent subsequent revisions, Class 3 label.
 3. A Class 3-equivalent garment—a Class 2 vest with the ANSI/ISEA 107-2004, or equivalent subsequent revisions, label worn with Class E pants.

2-107 Safety Precautions for the Public in Construction Areas

Construction sites receive many visitors, including nonconstruction staff from Caltrans; personnel from federal, state, and local agencies such as the Department of Water Resources, Department of Fish and Wildlife, and Air Quality Management District; property or business owners; and members of the media. All visitors not associated with the contractor should follow Caltrans' personal protection equipment requirements and *Construction Code of Safe Practices* requirements unless their agency's is more stringent. Resident engineers and assistant resident engineers should monitor for potential hazards to the general public and work with the contractor to take reasonable precautions to exclude the public from the construction area. Provide fencing, if practical, and "no trespassing" signs at sites that have potential dangers.

2-108 Hazardous Materials

If unanticipated hazardous materials are encountered on the project, notify the district hazardous waste coordinator who will advise you and may assist in the disposal procedures. The coordinator may also suggest extra safety measures to take to protect the public and workers.

Refer to Chapter 7, "Environmental Stewardship," of this manual for additional guidelines on hazardous waste.

2-109 Project Safety Reviews

Caltrans is committed to working with the construction industry to improve safety for construction projects by performing safety reviews. The Caltrans' designated project safety coordinator is to conduct weekly safety reviews throughout the duration of the project by using **the application to prepare** Form CEM-0606, "Construction Safety Checklists." In addition, **the** Caltrans resident engineer or designated project safety coordinator is to meet every other week with the contractor's assigned project safety representative to perform a joint safety review of the project and document this project safety review using **the application to prepare** Form CEM-0604, "Project Safety Review or Meeting." This review may consist of jointly touring the job site to inspect temporary traffic control systems and other worker safety protection devices and protocols. It is recommended to use Form CEM-0606, "Construction Safety Checklists," **application** to perform **and document** joint safety reviews and to aid in the inspection of safety requirements for the ongoing construction operations.

2-109A Project Safety Meeting Before Work Begins

Before the start of construction, a preconstruction conference with the contractor must be held as described in Section 5-003, "Preconstruction Conference with the Contractor," of the *Construction Manual*. In addition to this meeting, a separate kick-off project safety meeting must be held with the contractor's designated project safety representative at least 3 business days before the start of job site activities in accordance with Section 5-1.28, "Project Safety Reviews," of the *Standard Specifications*, to perform the following:

- Discuss project operations and safety requirements.
- Identify project safety personnel for Caltrans, such as the district Construction safety coordinator, resident engineer, or designated project safety coordinator, and contractor safety personnel, their contact information, and certifications, such as traffic control technician, or flagger.
- Review requirements for calling in lane closure information and discuss when the Traffic Management Center is to be notified for emergency responses as mentioned in Section 2-303, "Reporting Procedures," of this manual.
- Determine schedule for all planned project safety field reviews.
- Discuss the Construction Zone Enhanced Enforcement Program (COZEEP) plan and contact information if it is proposed for the project.
- Review the Positive Work Zone Protection plan if included in the project.
- Discuss traffic detours and staging, pedestrian detours, and bicycle detours if applicable.

To document the safety kick-off meeting, use Form CEM-0604, "Project Safety Review or Meeting," and file a copy of Form CEM-0604 in Category 6, "Safety," of the project records.

2-109B Project Safety Reviews During the Course of the Work

In accordance with Section 5-1.28, “Project Safety Reviews,” of the *Standard Specifications*, an every-other-week project safety review after the start of job site activities is to be performed by the resident engineer or designated project safety coordinator with the contractor’s project safety representative. In addition, a joint project safety review is also conducted after any incident that results in serious injury, illness, or fatality to the contractor’s personnel, the subcontractor’s or supplier’s personnel, or any other persons present at the job site. The structure representative or designee is to attend when structure work is active.

During the project safety review, job hazard analyses for active work activities and work activities planned to start within 5 working days are discussed in accordance with Section 5-1.29, “Job Hazard Analyses,” of the *Standard Specifications*. Job hazard analyses are submitted as informational submittals only. Even though it is only an informational submittal, review each job hazard analysis thoroughly and note safety concerns, issues, or hazards, as well as related hazard control measures, preventive or corrective actions that need to be brought to attention to the contractor’s project safety representative, and discuss these concerns or issues during the project safety review. Any noncompliant safety checklist item on the completed Form CEM-0606, “Construction Safety Checklists,” performed weekly by the Caltrans designated project safety coordinator **using the application** should be discussed in the joint project safety review. Proposed actions to correct deficiencies or bring noncompliant safety checklist items into compliance are to be discussed during the project safety review.

The project safety review is documented on Form CEM-0604, “Project Safety Review or Meeting.” As required in Section 5-1.28, “Project Safety Reviews,” of the *Standard Specifications*, project safety review documentation must be submitted by the contractor to the engineer and correct deficiencies within 3 business days from the day the project safety review is completed or as directed by the engineer. Signatures of engineer and contractor’s project safety representative are required on this form. Additional safety items can be added to the form as needed to include the construction operations occurring at the job site. File a copy of the form used for every-other-week project safety review in Category 6, “Safety” of the project records.

2-109C Post-Project Safety Meeting

Upon contract acceptance, in accordance with Section 5-1.28, “Project Safety Reviews,” of the *Standard Specifications*, the resident engineer is to schedule a post-project safety meeting with the contractor to determine how effectively the joint safety reviews were run, to review safety issues that arose during the project, and to discuss lessons learned for possible future safety enhancements. The post-project safety meeting is to be documented on Form CEM-0604, “Project Safety Review or Meeting,” and filed in Category 6, “Safety,” of the project records. Lessons learned should also be shared with the project development team.

2-110 Job Hazard Analyses

In accordance with California Code of Regulations, Title 8, Section 3203(a)(4), (8 CCR 3203(a)(4)), “Injury and Illness Prevention Program” and 8 CCR 1511(b), “General Safety Precautions,” the contractor is required to prepare a job hazard analysis for each work activity to be performed on the job site. Mandating the use of job hazard analyses in project safety reviews will improve communication of job site safety hazards and thus add safety measures for workers and motorists through work zones. In accordance with Section 5-1.29, “Job Hazard Analyses,” of the *Standard Specifications*, each job hazard analysis must be submitted to the resident engineer as an informational submittal.

2-110A Job Hazard Analysis Elements

Each job hazard analysis (JHA) submitted must identify the following:

1. Work activity description
2. Existing and predictable hazards associated with the work activity
3. Hazard control measures, and preventive or corrective actions to be taken for the work activity

Even though it is only an informational submittal, make sure each job hazard analysis contains all the listed components.

2-110B Job Hazard Analysis Submittal

In accordance with Section 5-1.29, “Job Hazard Analyses,” of the *Standard Specifications*, each job hazard analysis (JHA) must be submitted at least 5 working days before the start of a work activity to provide time for the engineer and Construction staff to review the JHA. The JHA does not need to be approved by the resident engineer, because it is only an informational submittal. However, after reviewing the JHA, note what safety concerns, issues, and hazards, as well as related hazard control measures, and preventive or corrective actions that may be discussed with the contractor in the project safety reviews. Provide copies of the job hazard analyses to Construction personnel who will be monitoring the work activities. File copies of submitted JHAs in Category 6, “Safety” of the project files.

2-110C During the Course of Work

The contractor’s project safety representative is required to discuss job hazard analyses for active work activities and work activities planned to start within 5 working days with the resident engineer in accordance with Section 5-1.29, “Job Hazard Analyses,” during the project safety reviews required under Section 5-1.28, “Project Safety Reviews,” of the *Standard Specifications*. Bring to the contractor’s project safety representative’s attention any noted safety concerns, issues or hazards, as well as related hazard control measures, and preventive or corrective actions from the review of the submitted JHA. Require the contractor’s project safety representative to address these concerns or issues.

When equipment or methods change as a result of a change to the hazards previously identified, the contractor is required to submit a revised job hazard analysis within one working day of the identified change, as specified in Section 5-1.29, “Job Hazard Analyses,” of the *Standard Specifications*.

Chapter 5

Contract Administration

Section 1 Project Records and Reports

5-101 Forms Used for Contract Administration

5-101A	General	
5-101B	Construction Forms	
Form CEM-0101	Resident Engineer's Report of Assignment	
Form CEM-0501	Relief from Maintenance	
Form CEM-0602	Project Safety Program Statement	
Form CEM-0603	Major Construction Incident Notification	
Form CEM-0604	Project Safety Review or Meeting	
Form CEM-0606	Construction Safety Checklists	
Form CEM-1201	Subcontracting Request	
Form CEM-1202A	Contractor Action Request—Change of Name/Address	
Form CEM-1202B	Contractor Action Request—Assignment of Contract Monies, Assignee Change of Name/Address	
Form CEM-1203	Contractor Action Request—Assignment of Contract Performance	
Form CEM-1211	Renewable Diesel Report	
Form CEM-1302	Construction Work Zone Positive Protection Determination	
Form CEM-1303	Positive Work Zone Protection Supplement	
Form CEM-1901	Burial Location of Soil Containing Aerially Deposited Lead	
Form CEM-1902	Burial Location of Soil Containing Naturally Occurring Asbestos	
Form CEM-1903	Burial Location of Soil Containing Aerially Deposited Lead (Topographic Survey)	
Form CEM-1904	Agreement Between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction Related Material on Commercial Zoned Property Owner's Property	
Form CEM-1905	Agreement Between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction Related Material on Residential Zoned Property Owner's Property	
Form CEM-1906	Agreement Between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction-Related Material Suitable for Use on Residential Zoned Property	

Form CEM-2006	Legally Responsible Person Authorization of Approved Signatory
DOT Form CEM-2006SW	Legally Responsible Person Authorization of Duly Authorized Representative
Form CEM-2006T	Legally Responsible Person Authorization of Approved Signatory—Lake Tahoe Hydrologic Unit
Form CEM-2008	SWPPP/WPCP Amendment Certification and Acceptance
Form CEM-2009	SWPPP/WPCP Amendments Log
Form CEM-2023	Stormwater Training Record
Form CEM-2024	Stormwater Training Log—Optional
Form CEM-2030	Stormwater Site Inspection Report
Form CEM-2031T	Daily Stormwater Site Inspection Report - Lake Tahoe Hydrologic Unit
Form CEM-2032	Permanent Erosion Control Establishment (PECE) Report
Form CEM-2034	Monthly Stormwater Best Management Practices & Materials Inventory Report—Optional
Form CEM-2035	Stormwater Corrective Actions Summary
Form CEM-2035T	Stormwater Corrective Actions Summary – Lake Tahoe Hydrologic Unit
Form CEM-2045	Rain Event Action Plan
Form CEM-2045T	Rain Event Action Plan—Lake Tahoe Hydrologic Unit
Form CEM-2051	Stormwater Sampling and Analysis Log—Optional
Form CEM-2052	Stormwater Sample Field Test Report/Receiving Water Monitoring Report
Form CEM-2058	Stormwater Meter Calibration Record—Specialty Meters
Form CEM-2061	Notice of Discharge Report
Form CEM-2061T	Notice of Discharge Report—Lake Tahoe Hydrologic Unit Stormwater Sample Field Test Report/Receiving Water Monitoring Report
Form CEM-2062	Numeric Action Level Exceedance Report
Form CEM-2062T	Numeric Action Level Exceedance Report—Lake Tahoe Hydrologic Unit
Form CEM-2063	Numeric Effluent Limitation Violation Report—ATS Discharges
Form CEM-2063T	Numeric Effluent Limitation Violation ReportLake Tahoe Hydrologic Unit
Form CEM-2070S	WPPP/WPCP Annual Certification of Compliance
Form CEM-2075	Project Stormwater Annual Report

Form CEM-2075T	Project Stormwater Annual Report–Lake Tahoe Hydrologic Unit
Form CEM-20CC	Attachment CC, Water Pollution Control Best Management Practices List
Form CEM-20DAPP	Appendix D, Notification Log
Form CEM-20DCON	SWPPP/WPCP Attachment D, Contractor Personnel Training Record
Form CEM-20DSUB	SWPPP/WPCP Attachment D, Subcontractor Personnel Stormwater Training Record
Form CEM-20EE	SWPPP Attachment EE, Stormwater Sampling Locations
Form CEM-2101	COZEED Daily Report
Form CEM-2102	COZEED/MAZEED Task Order
Form CEM-2103	COZEED/MAZEED Cancellation Form
Form CEM-2210	Traffic Control Daily Report
Form CEM-2301	Temporary Pedestrian Access Route Compliance Inspection Report
Form CEM-2302	Temporary Pedestrian Access Route Weekly Inspection Report
Form CEM-2303	Temporary Pedestrian Access Route Sidewalk Detour Inspection Report
Form CEM-2311	Temporary Pedestrian Access Route Contractor Compliance Report
Form CEM-2312	Temporary Pedestrian Access Route Contractor Weekly Report
Form CEM-2401	Substitution Report for Disadvantaged Business Enterprise (DBE) or Underutilized Disadvantaged Business Enterprise (UDBE)
Form CEM-2402(F)	Final Report—Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors
Form CEM-2402(S)	Final Report—Utilization of Disabled Veteran Business Enterprises (DVBE), State Funded Projects Only
Form CEM-2403(F)	Disadvantaged Business Enterprises (DBE) Certification Status Change
Form CEM-2404(F)	Monthly DBE /UDBE Trucking Verification
Form CEM-2405	Disabled Veteran Business Enterprise (DVBE) Substitution Request to the Department of General Services (DGS)
Form CEM-2406	Monthly Disadvantaged Business Enterprises (DBE) Payment

Form CEM-2407 Disadvantaged Business Enterprises Joint Check Agreement Request

Form CEM-2410 Disadvantaged Business Enterprise Commercially Useful Function Evaluation

DOT Form CEM-2411 Disadvantaged Business Enterprise Commercially Useful Function Corrective Action Plan

Form CEM-2415 Commercially Useful Function Monitoring Review Contractor/Subcontractor/Trucker

Form CEM-2416 Commercially Useful Function Monitoring Review Regular Dealer/Manufacturer/Broker

Form CEM-2417 Commercially Useful Function Monitoring Review Professional Services

Form CEM-2500 LCPtracker Vendor Access Request

Form CEM-2501 Fringe Benefit Statement

Form CEM-2502 Contractor or Subcontractor Payroll

Form CEM-2503 Statement of Compliance

Form CEM-2504 Employee Interview: Labor Compliance/EEO

Form CEM-2504 (Spanish), Entrevista de Empleado: Cumplimiento Laboral/IOE

Form CEM-2506 Labor Compliance—Wage Violation

Form CEM-2507 Labor Violation: Case Summary

Form CEM-2508 Contractor Payroll Source Document Audit Summary

Form CEM-2509 Checklist—Source Document Audit

Form CEM-2513 Weekly Report of Job Site Labor

Form CEM-2601 Construction Progress Chart (Oversight Projects)

Form CEM-2701 Weekly Statement of Working Days

Form CEM-2702 Overrun in Contract Time

Form CEM-3101 Notice of Materials to Be Used

Form CEM-3501 Hot Mix Asphalt Production Report

Form CEM-3502 Hot Mix Asphalt Placement Report

Form CEM-3511 Contractor Job Mix Formula Proposal

Form CEM-3512 Contractor Hot Mix Asphalt Design Data

Form CEM-3513 Caltrans Hot Mix Asphalt Verification

Form CEM-3514 Contractor Job Mix Formula Renewal

Form CEM-3701 Test Result Summary

Form CEM-3702 Relative Compaction Summary

Form CEM-3703 Caltrans Production Start-Up Evaluation

Form CEM-3736 Pavement Smoothness Inertial Profiler Submittal Record

Form CEM-3736AC Asphalt Concrete Pavement Smoothness Corrections Information

Form CEM-3736C	Concrete Pavement Smoothness Corrections Information
Form CEM-3801	Request for Assignment of Inspectors, Samplers, and Testers
Form CEM-3802	Quality Control Inspector Affidavit of Proficiency
Form CEM-3803	Daily Summary of Quality Control Testing
Form CEM-3804	Hot Mix Asphalt Inspection and Testing Summary
Form CEM-3810	Construction Grade Checking Report
Form CEM-4101	Materials Release Summary
Form CEM-4102	Material Inspected and Released on Job
Form CEM-4202	Material Plant Safety Checklist
Form CEM-4401	Solid Waste Disposal and Recycling Report
Form CEM-4403	Recycled Materials Report
Form CEM-4410	Crumb Rubber Usage Report
Form CEM-4501	Resident Engineer's Daily Report/Assistant Resident Engineer's Daily Report
Form CEM-4601	Assistant Resident Engineer's Daily Report
Form CEM-4701	Drainage System Summary
Form CEM-4801	Quantity Calculations
Form CEM-4900	Change Order
Form CEM-4901	Change Order Input
Form CEM-4902	Extra Work Bill (Short Form)
Form CEM-4902A	Extra Work Bill—Title Page
Form CEM-4902B	Extra Work Bill—Labor Charges
Form CEM-4902C	Extra Work Bill—Equipment Charges
Form CEM-4902D	Extra Work Bill—Material Charges
Form CEM-4903	Change Order Memorandum
Form CEM-4904	Caltrans Authorization for Using Internet Extra Work Bill System
Form CEM-4905	Contractor Authorization for Using Internet Extra Work Bill System
Form CEM-4906	Internet Extra Work Bill (iEWB) User Account Request Form
Form CEM-4907	Tentative Daily Extra Work Agreement
Form CEM-4910	Value Engineering Change Proposal Submittal
Form CEM-4911	Value Engineering Change Proposal Acceptance/Rejection
Form CEM-5101	Request for Payment for Materials on Hand
Form CEM-5105	Materials on Hand Summary
Form CEM-5500	Partnering Facilitator Registration
Form CEM-5501	Partnering Facilitator Evaluation—Kick-Off
Form CEM-5502	Partnering Facilitator Evaluation—Closeout

Form CEM-5773	Americans with Disabilities Act (ADA) Project Compliance Certification
Form CEM-5773ADE	Curb Ramp (Case A, D, or E) Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773B	Curb Ramp (Case B) Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773C	Curb Ramp (Case C) Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773CH	Curb Ramp (Case CH) Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773CM	Curb Ramp (Case CM) Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773DW	Sidewalk at Driveway Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773FG	Curb Ramp (Case F or G) Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773NSPL	Curb Ramp (Non-Standard Plan - Parallel) Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773NSPP	Curb Ramp (Non-Standard Plan - Perpendicular) Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773P	Parking Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773PW	Passageway Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5773SW	Sidewalk Americans with Disabilities Act (ADA) Compliance Inspection Report
Form CEM-5803A	Electrical System Inspection Checklist
Form CEM-5803B	Detector Loop Inspection Checklist
Form CEM-5819A	Cable Verification Worksheet
Form CEM-5819B	Segment Verification Worksheet
Form CEM-5819C	Link Loss Budget Worksheet
Form CEM-6003	Progress Pay—Estimate Project Initiation or Update
Form CEM-6004	Contract Transactions Input
Form CEM-6101	Project Record—Estimate Request
Form CEM-6200	Candidate Application for Dispute Resolution Board (DRB) Member/Dispute Resolution Advisor (DRA)
Form CEM-6201D	Initial Potential Claim Record

Form CEM-6201E	Supplemental Potential Claim Record
Form CEM-6201F	Full and Final Potential Claim Record
Form CEM-6202	Dispute Resolution Board (DRB)—Establishment Report
Form CEM-6203	Dispute Resolution Board (DRB) Update Report
Form CEM-6204	Dispute Resolution Board (DRB) —Dispute Meeting Report
Form CEM-6205	Dispute Resolution Board (DRB)—Completion Report
Form CEM-6206	Dispute Resolution Advisor—Establishment Report
Form CEM-6207	Dispute Resolution Advisor (DRA)—Dispute Meeting Report
Form CEM-6208	Dispute Resolution Ladder Establishment
Form CEM-6209	Elevation of a Dispute
Form CEM-6210	Alternative Dispute Resolution—Progress Meeting Report
Form CEM-6214	Dispute Resolution Chargeable Hours Authorization
Form CEM-6220	Dispute Resolution Board (DRB) Member/Dispute Resolution Advisor (DRA) Resume
Form CEM-6301	Contract Acceptance
Form CEM-6302	Final Materials Certification
Form CEM-9001	Construction Manual Proposed Change
Form OFG-1	Oversight Resident Engineer’s Preconstruction Checklist
Form OFG-2	Local Agency and Oversight Resident Engineer Preconstruction Conference Checklist
Form OFG-3	Local Agency Resident Engineer Contract Provisions Checklist
Form OFG-4	Oversight Resident Engineer’s Construction Contract Administration Verification Checklist
Form OFG-5	Federal-Aid Projects of Division Interest
Form OFG-6	Final Acceptance Checklist for Caltrans Oversight Projects
Form PM-S-0110	Safety Meeting Report
5-101C	Materials Engineering and Testing Services Forms
Form MR-0518	Job Cement Samples Record
Form TL-0015	Quality Assurance—Nonconformance Report
Form TL-0016	Quality Assurance—Nonconformance Resolution
Form TL-0028	Notice of Materials to Be Inspected at Job Site
Form TL-0029	Report of Inspection of Material
Form TL-0038	Inspection Request

Form TL-0101	Sample Identification Card
Form TL-0502	Field Sample of Portland Cement Concrete Sample Card
Form TL-0608	Notice of Materials to be Furnished
Form TL-0624	Inspection Release Tag
Form TL-0625	Materials Suitability Tag
Form TL-0649	Report of Materials on Hand
Form TL-6013 Toll	Material Suitability Documentation Report
Form TL-6014	Material Suitability Report
Form TL-6037	Fabrication Progress Report
5-101D	Other State Forms
Form DPD-3013	Request for Construction Staking
Form LA-17	Report of Chemical Spray Operations
5-101E	Traffic Operations Forms
Form TR-0019	Notice of Change in Clearance or Bridge Weight Rating
Form TR-0020	Notice of Change in Vertical or Horizontal Clearance
Form TR-0029	Notice of Change in Clearance or Bridge Weight Rating
Form TR-0030	Work Zone Category 1 Temporary Traffic Control Device Certificate of Crashworthiness
Form TR-0405	Certification of Compliance with Americans with Disabilities Act (ADA)
5-101F	Federal Forms
Form FHWA-1391	Federal-Aid Highway Construction Contractors Annual EEO Report
Form DOL SF-308	Request for Wage Determination and Response to Request
5-102	Organization of Project Documents
5-102A	General
5-102B	Indexing
5-102C	Description of Categories
Category 1	Project Personnel
Category 2	Project Office Equipment and Supplies
Category 3	Equipment and Personnel Cost Reports
Category 4	Service Contracts
Category 5	General Correspondence
Category 6	Safety
Category 7	Public Relations
Category 8	Construction Surveys
Category 9	Welding

Category 10	Extra Category Number
Category 11	Information Furnished at Start of Project
Category 12	Contractor
Category 13	Signs and Striping
Category 14	Photo Records
Category 15	Accidents
Category 16	Utility Agreements
Category 17	Utility Work Performed
Category 18	Agreements
Category 19	Hazardous Waste and Hazardous Materials
Category 20	Water Pollution Control Plan or Stormwater Pollution Prevention Plan
Category 21	Construction or Maintenance Zone Enhanced Enforcement Program
Category 22	Traffic Management Information
Category 23	Temporary Pedestrian Access Routes
Category 24	Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises
Category 25	Labor Compliance and Equal Employment Opportunity
Category 26	Progress Schedule
Category 27	Weekly Statement of Working Days
Category 28	Weekly Newsletter
Category 29	Materials Information and Preliminary Tests
Category 30	Basement Soil Test Results
Category 31	Notice of Materials to Be Used
Category 32	Notice of Materials to Be Inspected at the Job Site
Category 33	Notice of Materials to Be Furnished
Category 34	Treated Base
Category 35	Hot Mix Asphalt
Category 36	Concrete other than structure items
Category 37	Initial Tests and Acceptance Tests
Category 38	Quality Control
Category 39	Materials Testing Qualification of Employees
Category 40	Field Laboratory Assistant Reports to Resident Engineer
Category 41	Report of Inspection of Material
Category 42	Material Plants
Category 43	Concrete and Reinforcing Steel
Category 44	Recycle Materials and Diversion of Solid Waste
Category 45	Resident Engineer's Daily Reports
Category 46	Assistant Resident Engineer's Daily Reports

Example 5-1.1 Subcategories for project files

Category 47	Drainage Systems
Category 48	Bid Item Quantity Documents
Category 49	Change Orders
Category 50	Adjustment in Compensation Calculations
Category 51	Materials on Hand
Category 52	Charges to Total Contract Allotment
Category 53	Credit to Contract
Category 54	Deductions From Payment to Contractor
Category 55	Partnering
Category 56	Extra Category Number
Category 57	Permanent Pedestrian Facilities
Category 58	Extra Category Number
Category 59	Bridge Estimate Data
Category 60	Contract Administration System Inputs and Reports
Category 61	Estimate and Project Status
Category 62	Disputes
Category 63	Project Completion Documents

5-102D Category Numbers and Headings

5-102E Alphabetical Listing of Categories

5-103 The Contract Administration System

5-103A General

Figure 5-1.1. Contract Administration System, Systems Interface

5-103B Project Initiation and Update

5-103B (1) Major and Minor A Contracts

5-103B (2) Emergency Contracts in Excess of Minor B Limits

5-103B (3) Completing Form CEM-6003, "Progress Pay—
Estimate Project Initiation or Update"

5-103B (3a) Project Key

5-103B (3b) Card Type C05; each field is independent
and can be updated separately

5-103B (3c) Card Type C06 to C08

5-103B (3d) Card Type C09 to C14

5-103B (3e) Card Type C15

5-103B (4) Processing

5-103C Contract Transactions

5-103C (1) Transaction Types

5-103C (1a) Contract Item Transactions

5-103C (1b) Miscellaneous Transactions

5-103C (1c) Change Order Transactions

5-103C (2)	Completing Form CEM-6004, “Contract Transactions Input”
5-103C (2a)	Contract Item Entries
5-103C (2b)	Miscellaneous Transactions
5-103C (2c)	Change Order Transactions
5-103C (2d)	General
5-103C (2e)	Audit Trail
	Example 5-1.2 Contract Transactions Input
	Example 5-1.3. Quantity Calculation
5-103C (3)	Computer Processing
5-103D	Change Orders
5-103D (1)	Completing Form CEM-4901, “Change Order Input”
5-103D (1a)	File
5-103D (1b)	Update
5-103D (1c)	Replace
5-103D (1d)	Delete
5-103D (2)	Edits
5-103E	Change Order Billing
5-103E (1)	Preparing Form CEM-4902, “Extra Work Bill (Short Form)”
5-103E (1a)	Basic Information (Title Page)
5-103E (1b)	Equipment
5-103E (1c)	Other Expenses Subject to Labor Markup
5-103E (1d)	Material or Work Done by Specialists, Lump Sum, or Unit Price Payments
5-103E (1e)	Signature of Prime Contractor’s Representative
5-103E (2)	Processing Form CEM-4902
5-103E (3)	Corrections to Change Order Bills
5-103F	Generating Estimates
5-103F (1)	Procedure
5-103F (1a)	Preparing Form CEM-6101, “Project Record— Estimate Request”
5-103F (1b)	Estimate Parameters
5-103F (1c)	Deductions
5-103F (2)	Computer Processing
5-103F (2a)	Estimate Edits
5-103F (2b)	Estimate Output
5-103F (3)	Potential Problems
5-103G	Approval of Estimates
5-103G (1)	Resident Engineer

5-103G (2)	District Director
5-103G (3)	Flagging an Estimate for Payment
5-103H	Reports Available Through the Contract Administration System
5-103H (1)	District (XX) Estimate Status
5-103H (2)	Project Management
5-103H (2a)	Project File Status Report
5-103H (2b)	Exceptional Contracts Report
5-103H (3)	District (XX) Project Status
5-103H (4)	Progress Payment-Work Done by Structure Construction (Copies)
5-103H (5)	Project Record-Estimate (Copies)
5-103H (6)	Status of Contract Items
5-103H (7)	Project Record Item Sheet
5-103H (8)	Status of Change Orders
5-103H (9)	Change Order Master Listing
5-103H (10)	Bridge Quantities by Structure
5-103H (11)	District (XX) Status of Anticipated Changes
5-103H (12)	Project Record-Estimate (Dummy)
5-103H (13)	Contract Contents Report
5-103H (14)	Contract Contents Report-Contract Item Records
5-103H (15)	Contract Contents Report-Contract Progress
5-103H (16)	DEWRs in Holding File
5-103H (17)	Daily Extra Work Report
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Section 1 Project Records and Reports

5-101 Forms Used for Contract Administration

5-101A General

One of the duties of the resident engineer is to keep accurate and complete records of the work.

This section includes a list of forms used in administering a construction project and maintaining records. Use forms not related directly to contract administration, such as personnel documents and accounting forms, in accordance with instructions contained in other Caltrans manuals.

The Division of Construction issues new or revised Construction forms. All Division of Construction forms have a prefix of CEM (Construction Engineering Management) and a number that is related to the form's uniform filing system category. If an existing form no longer meets its intended purpose, refer to Section 1-004, "Changes," of this manual.

Complete Form CEM-9001, "Construction Manual Proposed Change," including your supervisor's approval, and send it to the Division of Construction Publications Unit. Explain the reason for the proposed change and attach a draft of the proposed revised form.

The Division of Construction will review the proposed change and make a decision regarding any future revision. Not all forms issued by the Materials Engineering and Testing Services (METS) are listed in this manual. If a test method includes a specific form, contact METS. Forms issued by Structure Construction are listed on the Structure Construction forms Onramp page.

5-101B Construction Forms

All Division of Construction forms are available online at:

<https://dot.ca.gov/programs/construction/forms>

Following is a list and descriptions of the Division of Construction forms:

Form CEM-0101 Resident Engineer's Report of Assignment

When assigned to a new project, the resident engineer will use this form to provide contact information. Distribute copies of the report according to instructions on the form and any district instructions.

It is not necessary or desirable to hold the form until all information is available. Submit partial information with a note that a supplemental form will follow.

Form CEM-0501 Relief from Maintenance

The resident engineer uses this form to recommend that the contractor be relieved from maintenance and responsibility in accordance with Section 5-1.38, “Maintenance and Protection Relief,” of the *Standard Specifications*. For more information refer to Section 3-520, “Maintenance and Protection Relief,” of this manual.

Form CEM-0602 Project Safety Program Statement

The resident engineer uses this form to list the sections of the *Code of Safe Practices* that apply to the project. This form may also be used to designate an employee as the project safety coordinator.

Form CEM-0603 Major Construction Incident Notification

The resident engineer uses this form to report major construction incidents. Instructions for completion are included on the last page of the form.

Form CEM-0604 Project Safety Review or Meeting

The form documents the project safety meeting before work begins, the project safety review, and the post-project safety meeting with the contractor’s designated project safety representative as discussed in Section 2-109, “Project Safety Reviews,” of this manual.

Form CEM-0606 Construction Safety Checklists

Construction safety staff use **the electronic CEM-0606 application to document safety reviews conducted at least weekly on this form** throughout the duration of the project to monitor the contractor’s compliance with safety regulations and specifications. It is also used for discussion in the every-other-week project safety review with the contractor. **The completed form is filed automatically from the application in the project folder in FalconDMS.**

Form CEM-1201 Subcontracting Request

The contractor submits this form and the resident engineer uses the form to calculate the percentage of work to be performed by the contractor. Section 3-5, “Control of Work,” of this manual describes the procedures. The resident engineer must sign this form before the contractor can begin on the applicable subcontracted work. Before approval, verify that subcontractors are not on the debarred contractors list on the California Department of Industrial Relations website:

<http://www.dir.ca.gov/dlse/debar.html>

Form CEM-1202A Contractor Action Request—Change of Name/Address

The contractor submits this form to the resident engineer to request a change in the contractor’s name or address under the contract in accordance with Section 5-1.12, “Assignment,” of the *Standard Specifications*.

Form CEM-1202B Contractor Action Request—Assignment of Contract Monies, Assignee Change of Name/Address

The contractor submits this form to the resident engineer to request an assignment of monies, or an assignee's change of name or address under the contract in accordance with Section 5-1.12, "Assignment," of the *Standard Specifications*.

Form CEM-1203 Contractor Action Request—Assignment of Contract Performance

The original contractor or the contractor's surety submits this form to the resident engineer in accordance with Section 5-1.12, "Assignment," of the *Standard Specifications*.

Form CEM-1211 Renewable Diesel Report

The contractor uses this form when the project requires the use of renewable diesel for in-use off-road diesel fueled vehicles and equipment. The contractor completes and certifies the information reported on this form. The resident engineer reviews, signs, and returns the form to the contractor for completed report submittal.

Form CEM-1302 Construction Work Zone Positive Protection Determination

This form is completed by the project engineer to document that a project complies with the policy for providing positive work zone protection. Refer to Design Information Bulletin 91, "Guidelines on the Use of Positive Work Zone Protection (PWP) & Mitigation Measures."

Form CEM-1303 Positive Work Zone Protection Supplement

This form is completed by the resident engineer to document when an addition, revision, or exception is required on a project for compliance with the policy for providing positive work zone protection. Refer to Design Information Bulletin 91, "Guidelines on the Use of Positive Work Zone Protection (PWP) & Mitigation Measures."

Form CEM-1901 Burial Location of Soil Containing Aerially Deposited Lead

The contractor submits this form to the resident engineer at ADL@dot.ca.gov within 5 business days of completing placement of the material. The resident engineer reviews the information and retains the form in the construction project records.

Form CEM-1902 Burial Location of Soil Containing Naturally Occurring Asbestos

The contractor submits this form to the resident engineer at NOA@dot.ca.gov within 5 business days of completing placement of the material. The resident engineer reviews the information and retains the form in the construction project records.

Form CEM-1903

Burial Location of Soil Containing Aerially Deposited Lead (Topographic Survey)

The contractor submits this form to the resident engineer and by email to ADL@dot.ca.gov within 5 business days after topographic survey of the top at each location. The resident engineer reviews the information, retains the form in the construction project records and forwards the form to the District ADL Coordinator.

Form CEM-1904

Agreement Between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction Related Material on Commercial Zoned Property Owner's Property

The contractor uses this form when Type Com material is being disposed of on an owner's commercial zoned property. The contractor must submit this form to the resident engineer when taking ownership of materials and, by doing so, the contractor states that the property owner has been notified that the material being deposited contains lead with concentrations of 80 milligrams per kilogram (mg/kg) through 320 mg/kg and has received a copy of the information handout containing lead concentration data. The contractor further agrees to furnish to the resident engineer with all required permits, licenses, agreements, certifications, and clearances before placing material on the property. For more information, refer to Section 7-107B (2) "Regulated Material," of this manual.

Form CEM-1905

Agreement Between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction Related Material on Residential Zoned Property Owner's Property

The contractor uses this form when unregulated material is being disposed of on an owner's residential zoned property. The contractor must submit this form to the resident engineer when taking ownership of materials and, by doing so, the contractor states that the property owner has been notified that the material being deposited contains lead with concentrations less than 80 mg/kg. The contractor further agrees to furnish to the resident engineer with all required permits, licenses, agreements, certifications, and clearances before placing material on the property.

Form CEM-1906

Agreement Between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction-Related Material Suitable for Use on Residential Zoned Property

The contractor uses this form when unregulated material is being disposed of on an owner's residential zoned property. The contractor must submit this form to the resident engineer when taking ownership of materials and, by doing so, the contractor states that the property owner has been notified that the material being deposited contains lead with concentrations less than 80 mg/kg. The contractor further agrees to furnish to the resident engineer with all required permits, licenses, agreements, certifications, and clearances before placing material on the property.

For more information, refer to Section 7-107B (1) “Unregulated Material,” of this manual.

Form CEM-2006 Legally Responsible Person Authorization of Approved Signatory

The district director submits this form and the resident engineer reviews the information for completeness and accuracy. File the form in the construction project records. Instructions are included on the last page of the form.

DOT Form CEM-2006SW Legally Responsible Person Authorization of Duly Authorized Representative

The legally responsible person for Caltrans projects is the district director, who may authorize the project resident engineer to be the duly authorized representative. For a local agency, a principal executive officer or ranking elected official may authorize the project resident engineer. For a private entity performing work in the state right-of-way under an encroachment permit, the legally responsible person may not authorize a duly authorized representative.

Form CEM-2006T Legally Responsible Person Authorization of Approved Signatory—Lake Tahoe Hydrologic Unit

The district director submits this form to the California Regional Water Quality Control Board, as required by the Caltrans National Pollutant Discharge Elimination System (NPDES) permit. Instructions are included on the last page of the form.

Form CEM-2008 SWPPP/WPCP Amendment Certification and Acceptance

The resident engineer reviews this form for completeness and accuracy as submitted by the contractor, and files it in the construction project records. Instructions are included on the last page of the form.

Form CEM-2009 SWPPP/WPCP Amendments Log

The resident engineer reviews this form for completeness and accuracy as submitted by the contractor, and files it in the project files. Instructions are included on the last page of the form.

Form CEM-2023 Stormwater Training Record

The resident engineer reviews this form as submitted by the contractor, and files it in the project files. Instructions are included on the last page of the form.

Form CEM-2024 Stormwater Training Log—Optional

The resident engineer files this form, as filled out by the contractor, in the project files. Instructions are included on the last page of the form.

Form CEM-2030 Stormwater Site Inspection Report

The resident engineer fills out and files this form in the project records. Instructions are included on the last page of the form.

Form CEM-2031T Daily Stormwater Site Inspection Report - Lake Tahoe Hydrologic Unit

The water pollution control manager submits this form to the resident engineer as required by the Lake Tahoe Hydrologic Unit Construction General Permit. Instructions are included on the last page of the form.

Form CEM-2032 Permanent Erosion Control Establishment (PECE) Report

The water pollution control manager submits this form to the resident engineer when a contract has a bid item for Permanent Erosion Control Establishment. The resident engineer reviews work descriptions, schedules, and associated change orders for compliance and payment. The resident engineer retains the form in the construction project records under the Storm Water Pollution Prevention Plan files.

Form CEM-2034 Monthly Stormwater Best Management Practices & Materials Inventory Report—Optional

The resident engineer files this form as filled out by the contractor, in the project files. Instructions are included on the form.

Form CEM-2035 Stormwater Corrective Actions Summary

The resident engineer files this form as filled out by the contractor, in the project files. Instructions are included on the last page of the form.

Form CEM-2035T Stormwater Corrective Actions Summary – Lake Tahoe Hydrologic Unit

The water pollution control manager submits this form to the resident engineer as required by the Lake Tahoe Hydrologic Unit Construction General Permit. Instructions are included on the last page of the form.

Form CEM-2045 Rain Event Action Plan

The resident engineer files this form, as filled out by the contractor, in the project files. Instructions are included within the pages of the form.

Form CEM-2045T Rain Event Action Plan—Lake Tahoe Hydrologic Unit

The resident engineer files this form, as filled out by the contractor, in the project files. Instructions are included within the pages of the form.

Form CEM-2051 Stormwater Sampling and Analysis Log—Optional

The resident engineer files this form, as filled out by the contractor, in the project files. Instructions are included on the last page of the form.

Form CEM-2052 Stormwater Sample Field Test Report/Receiving Water Monitoring Report

The resident engineer files this form, as filled out by the contractor, in the project files. Instructions are included on the last page of the form.

Form CEM-2058 Stormwater Meter Calibration Record—Specialty Meters

The resident engineer files this form, as filled out by the contractor, in the project files. Instructions are included on the last page of the form.

Form CEM-2061 Notice of Discharge Report

The resident engineer submits this form to the California Regional Water Quality Control Board, as required by the Caltrans NPDES permit. Instructions are included on the last page of the form.

Form CEM-2061T Notice of Discharge Report—Lake Tahoe Hydrologic Unit Stormwater Sample Field Test Report/Receiving Water Monitoring Report

This form is to be completed when the contractor, Caltrans, State Water Resources Control Board, or Regional Water Quality Control Board staff determines that stormwater discharges, authorized nonstormwater discharges, or nonauthorized, nonstormwater discharges will violate an applicable water quality standard. This form is submitted to the resident engineer. Instructions are included on the last page of the form.

Form CEM-2062 Numeric Action Level Exceedance Report

The resident engineer submits this form to the California Regional Water Quality Control Board, as required by the Caltrans NPDES permit. Instructions are included on the last page of the form.

Form CEM-2062T Numeric Action Level Exceedance Report—Lake Tahoe Hydrologic Unit

The resident engineer submits this form to the California Regional Water Quality Control Board, as required by the Caltrans NPDES permit. Instructions are included on the last page of the form.

Form CEM-2063 Numeric Effluent Limitation Violation Report—ATS Discharges

The resident engineer submits this form to the California Regional Water Quality Control Board, as required by the Caltrans NPDES permit. Instructions are included on the last page of the form.

Form CEM-2063T Numeric Effluent Limitation Violation Report—Lake Tahoe Hydrologic Unit

The resident engineer submits this form to the California Regional Water Quality Control Board, as required by the Caltrans NPDES permit. Instructions are included on the last page of the form.

Form CEM-2070 SWPPP/WPCP Annual Certification of Compliance

The resident engineer submits this form to the California Regional Water Quality Control Board, as required by the Caltrans NPDES permit. Instructions are included on the last page of the form.

Form CEM-2075 Project Stormwater Annual Report

This form is completed by the contractor and submitted to the resident engineer to document stormwater monitoring and training information required to prepare a Stormwater Annual Report each year for all SWPPP projects for more than three consecutive months. Instructions are included on the last page of the form.

Form CEM-2075T Project Stormwater Annual Report—Lake Tahoe Hydrologic Unit

This form is completed by the contractor and submitted to the resident engineer to document stormwater monitoring and training information required to prepare a Stormwater Annual Report each year for all enrolled projects in the Lake Tahoe Hydrologic Unit for the period of October 16 of the previous year through October 15 of the current year. Instructions are included on the last page of the form.

Form CEM-20CC Attachment CC, Water Pollution Control Best Management Practices List

The contractor's water pollution control manager completes the form at different phases of the construction project to document the type and quantity of best management practices planned to prevent water pollution. Information in this form helps the water pollution control manager mobilize labor and coordinate necessary supplies. In addition, information in this form allows the stormwater inspector to fully understand the construction stage and anticipated quantity of best management practices in the field during the site visit.

Form CEM-20DAPP Appendix D, Notification Log

Subcontractors and material suppliers must be notified of their responsibilities on the construction job site related to stormwater runoff pollution prevention. This form documents the stormwater pollution prevention notifications given to each subcontractor and material supplier.

Form CEM-20DCON *SWPPP/WPCP Attachment D, Contractor Personnel Training Record*

Contractor personnel responsible for implementation of stormwater pollution prevention practices are required to be adequately trained in this field. Attachment D documents the training record of the contractor's personnel. This form is included in the stormwater pollution prevention plan (SWPPP) and is updated as necessary.

Form CEM-20DSUB *SWPPP/WPCP Attachment D, Subcontractor Personnel Stormwater Training Record*

Subcontractor personnel responsible for implementation of stormwater pollution prevention practices are required to be adequately trained in this field. Attachment D documents the training record of the subcontractor's personnel. This form is included in the SWPPP and is updated as necessary.

Form CEM-20EE *SWPPP Attachment EE, Stormwater Sampling Locations*

This form lists all potential water quality sampling locations within a project site during the course of construction. This form is prepared by the qualified SWPPP developer at the start of the project and is included in the SWPPP. Depending on the stage of construction and areas of disturbed soil activities, appropriate sampling locations from this list are selected for sampling of the stormwater runoff or discharge.

Form CEM-2101 *COZEEP Daily Report*

The California Highway Patrol and Caltrans jointly use this form to report highway patrol resources used for the Construction Zone Enhanced Enforcement Program (COZEEP). Chapter 2, "Safety and Traffic," of this manual further describes the use of the form.

Form CEM-2102 *COZEEP/MAZEEP Task Order*

The resident engineer uses this form to request highway patrol support for the Construction Zone Enhanced Enforcement Program. Additional use of this form is described in Chapter 2, "Safety and Traffic," of this manual.

Form CEM-2103 *COZEEP/MAZEEP Cancellation Form*

The resident engineer uses this form to cancel any previously requested highway patrol support. Use of this form is described in Chapter 2, "Safety and Traffic," of this manual.

Form CEM-2210 *Traffic Control Daily Report*

This form is to be completed by the certified traffic control technician assigned to the closure, to provide documentation on temporary traffic control system closures as required by, Section 12-4.02C(11), "Traffic Control Technician," of the *Standard Specifications*.

*Form CEM-2301 Temporary Pedestrian Access Route Compliance
Inspection Report*

The resident engineer uses this form to document initial inspection and Americans with Disabilities Act (ADA) compliance of a temporary pedestrian access route. For details, refer to Section 4-12, "Temporary Traffic Control," of this manual.

*Form CEM-2302 Temporary Pedestrian Access Route Weekly Inspection
Report*

The resident engineer uses this form to document weekly inspection and ADA compliance of a temporary pedestrian access route. For details, refer to Section 4-12, "Temporary Traffic Control," of this manual.

*Form CEM-2303 Temporary Pedestrian Access Route Sidewalk Detour
Inspection Report*

The resident engineer uses this form to document inspection and ADA compliance of a temporary pedestrian access route provided using an existing pedestrian route. For details, refer to Section 4-12, "Temporary Traffic Control," of this manual.

*Form CEM-2311 Temporary Pedestrian Access Route Contractor
Compliance Report*

The contractor uses this form to initially document that a temporary pedestrian access route is ADA compliant. For details, refer to Section 4-12, "Temporary Traffic Control," of this manual.

*Form CEM-2312 Temporary Pedestrian Access Route Contractor Weekly
Report*

The contractor uses this form to document weekly that a temporary pedestrian access route is ADA compliant. For details, refer to Section 4-12, "Temporary Traffic Control," of this manual.

*Form CEM-2401 Substitution Report for Disadvantaged Business
Enterprise (DBE) or Underutilized Disadvantaged
Business Enterprise (UDBE)*

The contractor fills out and provides this form to the resident engineer who uses the information to authorize DBE subcontractor substitutions. Sections 3-8, "Prosecution and Progress," and 8-3, "Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises," of this manual contain additional information on substituting subcontractors.

*Form CEM-2402(F) Final Report—Utilization of Disadvantaged Business
Enterprises (DBE), First-Tier Subcontractors*

The contractor completes this form. The resident engineer certifies the form. It describes work performed and materials provided by disadvantaged business

enterprise firms. Refer to Section 8-3, “Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises,” of this manual for details.

Form CEM-2402(S) Final Report—Utilization of Disabled Veteran Business Enterprises (DVBE), State Funded Projects Only

The contractor fills out and certifies this form, which describes work performed and materials provided by disabled veteran business enterprise firms. The resident engineer verifies the form. Refer to Section 8-3, “Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises,” of this manual for details.

Form CEM-2403(F) Disadvantaged Business Enterprises (DBE) Certification Status Change

The contractor fills out and certifies this form. The resident engineer uses the form to verify the actual dollar amount paid to DBE subcontractors on federally funded projects that have a change in certification status during the course of the contract. Refer to Section 8-3, “Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises,” of this manual for details.

Form CEM-2404(F) Monthly DBE /UDBE Trucking Verification

The contractor must submit this form before the 15th of each month. It lists the dollar amount paid to the DBE trucking companies for truck work performed by DBE certified truckers and for any fees or commissions for non-DBE truckers used each month on the project. Instructions for filling out this form are on the last page of the form.

Form CEM-2405 Disabled Veteran Business Enterprise (DVBE) Substitution Request to the Department of General Services (DGS)

The resident engineer completes this form, attaches all DVBE substitution request documentation from the contractor, and sends to the headquarters Division of Construction labor compliance program manager. Instructions for filling out this form are on the last page of the form.

Form CEM-2406 Monthly Disadvantaged Business Enterprises (DBE) Payment

The contractor completes this form for labor compliance purposes on federally funded projects only. Refer to Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2407 Disadvantaged Business Enterprises Joint Check Agreement Request

This signed agreement between the contractor and Disadvantaged Business Enterprise (DBE) subcontractor tracks and monitors the use of joint checks, which are two-party checks to both parties sent to DBEs for the purchase of materials for

use on the job. The agreement is provided to the resident engineer for inclusion in the project files.

CEM-2410 Disadvantaged Business Enterprise Commercially Useful Function Evaluation

This form is used by both contractors and Caltrans to perform Disadvantaged Business Enterprise (DBE) Commercially Useful Function (CUF) evaluations for contracts funded with federal funds to document the evaluation and verification of information. This form serves as written certification that the elements of work performed by a DBE company were monitored and evaluated according to the CUF requirements of 49 CFR 26.55. This form also contains data and questions to supplement monitoring of payments, termination of work, or changes in contract scope that may require prompt action.

DOT CEM-2411 Disadvantaged Business Enterprise Commercially Useful Function Corrective Action Plan

This form is used to provide an action plan to correct deficiencies found during an evaluation of the work provided by a Disadvantaged Business Enterprise in performing a Commercially Useful Function for contracts funded with federal funds.

CEM-2415 Commercially Useful Function Monitoring Review Contractor/Subcontractor/Trucker

The is form is used by Caltrans field staff to provide written documentation that the elements of work performed by a Disadvantaged Business Enterprise (DBE) company were monitored and evaluated according to the Commercially Useful Function and counting requirements of 49 CFR 26.55. This form also contains data and questions to monitor DBE performance or changes in contract scope that may require prompt action to assure compliance with DBE contract goal.

CEM-2416 Commercially Useful Function Monitoring Review Regular Dealer/Manufacturer/Broker

The is form is used by Caltrans field staff to provide written documentation that the elements of work performed by a Disadvantaged Business Enterprise (DBE) company were monitored and evaluated according to the Commercially Useful Function and counting requirements of 49 CFR 26.55. This form also contains data and questions to monitor DBE performance or changes in contract scope that may require prompt action to assure final compliance with DBE contract goal.

CEM-2417 Commercially Useful Function Monitoring Review Professional Services

The is form is used by Caltrans field staff to provide written documentation that the elements of work performed by a Disadvantaged Business Enterprise (DBE) company were monitored and evaluated according to the Commercially Useful Function and counting requirements of 49 CFR 26.55. This form also contains data and questions to monitor DBE performance or changes in contract scope that may require prompt action to assure final compliance with DBE contact goal.

Form CEM-2500 LCPtracker Vendor Access Request

The contractor uses this form to request a user account in the LCPtracker system. The contractor submits the completed form to the district labor compliance officer.

Form CEM-2501 Fringe Benefit Statement

The contractor completes this form for labor compliance purposes. Refer to Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2502 Contractor or Subcontractor Payroll

When it is requested, furnish this form to the contractor. It is used to fulfill the payroll submittal requirements of the contract. Refer to Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2503 Statement of Compliance

The contractor may use this form for the required statement of compliance with payroll submittals. Refer to Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2504 Employee Interview: Labor Compliance/EEO

Use this form to record information from interviews of contractors’ employees. Directions for the interviewer are on the back of the form. Refer to Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2504 (Spanish), Entrevista de Empleado: Cumplimiento Laboral/IOE

Same as previous form, printed in Spanish.

Form CEM-2506 Labor Compliance—Wage Violation

The district labor compliance officer uses this form to document labor compliance wage violations. Refer to Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2507 Labor Violation: Case Summary

The district labor compliance officer uses this form in conjunction with Form CEM-2506 to summarize labor violation cases. Refer to Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2508 Contractor Payroll Source Document Audit Summary

The district labor compliance officer uses this form to document the verification of the contractor’s payroll source document audit. Refer to Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2509 Checklist—Source Document Audit

The district labor compliance officer uses this form during the contractor's payroll source document audit. Refer to Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2513 Weekly Report of Job Site Labor

The district labor compliance officer uses this list to monitor and track work on the job site and aid in the review of certified payrolls and prevailing wage rates.

Form CEM-2601 Construction Progress Chart (Oversight Projects)

The resident engineer maintains this form for each project. Refer to Section 3-8, "Prosecution and Progress," of this manual for details.

Form CEM-2701 Weekly Statement of Working Days

The resident engineer uses this form to track contract time on construction contracts. The last page of the form and Section 3-8, "Prosecution and Progress," of this manual contain instructions for filling out the Weekly Statement of Working Days.

Form CEM-2702 Overrun in Contract Time

The Division of Construction may use this form to grant time adjustments after contract time has elapsed. For more information, refer to Section 3-8, "Prosecution and Progress," of this manual.

Form CEM-3101 Notice of Materials to Be Used

The contractor must use this form to list all materials to be used on the project. Refer to Section 6-2, "Acceptance of Manufactured or Fabricated Material and Products," of this manual for details on the use of the form. Instructions to the contractor are on the last page of the form.

Form CEM-3501 Hot Mix Asphalt Production Report

The plant inspector uses this form to document daily hot mix asphalt production processes and report any plant, material, and production deficiency to the resident engineer.

Form CEM-3502 Hot Mix Asphalt Placement Report

The paving inspector uses this form to document daily hot mix asphalt placement processes and report any material and construction deficiencies to the resident engineer.

Form CEM-3511 Contractor Job Mix Formula Proposal

The contractor uses this form to submit to the resident engineer, before the work begins, the hot mix asphalt mix formula tested for intended use on the project. The form states job mix formula target values for aggregate sieves and the percent of asphalt binder, as well as source information for all materials.

Form CEM-3512 Contractor Hot Mix Asphalt Design Data

The contractor uses this form to document the testing data developed by the mix design laboratory. Refer to Section 4-39, "Asphalt Concrete," of this manual for more information.

Form CEM-3513 Caltrans Hot Mix Asphalt Verification

Caltrans verifies that the proposed job mix formula complies with the specifications on this form. The resident engineer signs and returns the form to the contractor. Refer to Section 4-39, "Asphalt Concrete," of this manual for more information.

Form CEM-3514 Contractor Job Mix Formula Renewal

The contractor submits test results for renewal of hot mix asphalt job mix formula on this form to the resident engineer. When the test results indicate that the sampled and tested hot mix asphalt complies with the specifications, the resident engineer requests the district materials laboratory perform hot mix asphalt verification testing. Refer to Section 4-39, "Asphalt Concrete," of this manual for more information.

Form CEM-3701 Test Result Summary

The resident engineer must use this form to summarize acceptance tests frequency and results on each material. The form is also used to record dates for sampling, date shipped to laboratory, test result transmission to the resident engineer, and contractor notification of test result. Refer to Category 37, "Initial Tests and Acceptance Tests," in Section 5-102, "Organization of Project Documents," of this manual for details.

Form CEM-3702 Relative Compaction Summary

The resident engineer may use this form to summarize compaction test results in the same manner that Form CEM-3701 is used for other tests.

Form CEM-3703 Caltrans Production Start-Up Evaluation

The resident engineer uses this form to record the testing results at the beginning of production. Refer to Section 4-39, "Asphalt Concrete," of this manual for more information.

Form CEM-3736 Pavement Smoothness Inertial Profiler Submittal Record

The quality control manager submits this form to the resident engineer and the Caltrans secure file sharing system along with specified profiling information within 2 business days of profiling. The resident engineer reviews the information and retains the form in the construction project records.

Form CEM-3736AC Asphalt Concrete Pavement Smoothness Corrections Information

The contractor submits this form to the resident engineer and the Caltrans secure file sharing system along with their final profiling information within 5 business days

of profiling. The resident engineer reviews the information and retains the form in the construction project records.

Form CEM-3736C Concrete Pavement Smoothness Corrections Information

The contractor submits this form to the resident engineer and the Caltrans secure file sharing system along with their final profiling information within 5 business days of profiling. The resident engineer reviews the information and retains the form in the construction project records.

Form CEM-3801 Request for Assignment of Inspectors, Samplers, and Testers

The contractor uses this form to submit the names of quality control staff for hot mix asphalt projects using the quality control, quality assurance (QCQA) process.

Form CEM-3802 Quality Control Inspector Affidavit of Proficiency

The contractor uses this form to document the hot mix asphalt experience and training of proposed hot mix asphalt quality control inspectors for projects using the QCQA process.

Form CEM-3803 Daily Summary of Quality Control Testing

The contractor uses this form to provide a summary of quality control test results for each day that hot mix asphalt is placed on a QCQA process project.

Form CEM-3804 Hot Mix Asphalt Inspection and Testing Summary

The contractor uses this form to provide a checklist that shows the inspections and testing for each day that hot mix asphalt is placed on a QCQA process project. The contractor's quality control manager must document on this form deviations from the specifications or regular practices and certify that the information, tests, or calculations, comply with the contract specifications.

Form CEM-3810 Construction Grade Checking Report

The contractor uses this form to conduct quality control for different types of grades during construction; the resident engineer conducts grade verification and acceptance for grades.

Form CEM-4101 Materials Release Summary

The resident engineer uses this form to summarize the materials released by METS and materials inspected at the job site.

Form CEM-4102 Material Inspected and Released on Job

The resident engineer uses this form to list certain materials that may arrive on the job site without a Form TL-0029, "Report of Inspection of Material." Refer to Section 6-3, "Field Tests," of this manual for details.

Form CEM-4202 Material Plant Safety Checklist

The material plant inspector uses this form when checking a material plant for safety.

Form CEM-4401 Solid Waste Disposal and Recycling Report

The contractor completes and certifies the information reported on this form. The resident engineer reviews then submits the authorized form to the district recycling coordinator with a copy to the statewide recycling coordinator in headquarters Division of Design. The use of this form is described in Section 7-109, "Solid Waste Disposal and Recycling Reporting," of this manual.

Form CEM-4403 Recycled Materials Report

The form is completed by the contractor to document the recycled materials that were incorporated into the contract. This form documents the recycling of materials to comply with SB-1 Section 2030 (c).

Form CEM-4410 Crumb Rubber Usage Report

The contractor submits this form monthly to the resident engineer and email address CRM@dot.ca.gov. The resident engineer reviews the information and verifies paid quantities and contractor submittal of form to email address. Instructions to the contractor and resident engineer are on the last pages of the form. Refer to Section 7-108, "Crumb Rubber Usage Reporting," of this manual for more information.

Form CEM-4501 Resident Engineer's Daily Report/Assistant Resident Engineer's Daily Report

The resident engineer and assistant resident engineers use this form to record project activities daily. For more information, refer to Section 5-0, "Conduct of the Work," of this manual.

Form CEM-4601 Assistant Resident Engineer's Daily Report

Assistant resident engineers use this form to record daily individual contract item activity. It is also used to record extra work activity and to verify contractor's personnel listed on payrolls. For more information refer to Section 5-0, "Conduct of the Work," of this manual.

Form CEM-4701 Drainage System Summary

The resident engineer and assistant resident engineers use this form to record progress and summarize activity on drainage contract items. Refer to Category 47, "Drainage Systems," in Section 5-102, "Organization of Project Documents," of this manual for details.

Form CEM-4801 Quantity Calculations

The resident engineer and assistant resident engineers use this form for the basic source document for most contract item quantity calculations.

Form CEM-4900 *Change Order*

The resident engineer uses this form for change orders. Refer to Section 5-3, “Change Orders,” of this manual for information about change orders.

Form CEM-4901 *Change Order Input*

The resident engineer and assistant resident engineers use this form to input change orders for the project record and estimate data. Refer to Section 5-103D, “Change Orders,” of this manual for details.

Form CEM-4902 *Extra Work Bill (Short Form)*

The contractor uses this form for billing extra work. Details for use are on the last page of the form and are included in Section 5-103E, “Change Order Billing,” of this manual. The resident engineer may authorize contractor-designed forms. With previous approval from the Division of Construction, the contractor may submit change order bill data on a computer report identical to this form for all Caltrans projects.

Form CEM-4902A *Extra Work Bill—Title Page*

The contractor uses this form for billing extra work. It is the first page of the four-part change order bill. It identifies the project, change order number, method of payment, and performer of work. This form also provides for manual calculation of the bill. Details for use are on the last page of the form and are included in Section 5-103E, “Change Order Billing,” of this manual. The resident engineer may authorize contractor-designed forms. With previous approval from the Division of Construction, the contractor may submit change order bill data on a computer report identical to this form for all Caltrans projects.

Form CEM-4902B *Extra Work Bill—Labor Charges*

Contractors use this form for billing extra work. It is used to enter labor charges and other expense subject to labor markup. Details for use are on the last page of the form and are included in Section 5-103E, “Change Order Billing,” of this manual. The resident engineer may authorize contractor-designed forms. With previous approval from the Division of Construction, the contractor may submit change order bill data on a computer report identical to this form for all Caltrans projects. This form is used with Form CEM-4902A, “Extra Work Bill—Title Page.”

Form CEM-4902C *Extra Work Bill—Equipment Charges*

The contractor uses this form to enter equipment charges to the change order bill. Instructions for use are on the second page of the form and are included in Section 5-103E, “Change Order Billing,” of this manual. The resident engineer may authorize contractor-designed forms. With previous approval from the Division of Construction, the contractor may submit change order bill data on a computer report identical to this form for all Caltrans projects. This form is used with Form CEM-4902A, “Extra Work Bill—Title Page.”

Form CEM-4902D Extra Work Bill—Material Charges

The contractor uses this form for billing extra work. It is used to enter material charges to the change order bill. Details for use are on the last page of the form and are included in Section 5-103E, “Change Order Billing,” of this manual. The resident engineer may authorize contractor-designed forms. With previous approval from the Division of Construction, the contractor may submit change order bill data on a computer report identical to this form for all Caltrans projects. This form is used with Form CEM-4902A.

Form CEM-4903 Change Order Memorandum

The resident engineer uses this form in conjunction with Form CEM-4900, “Change Order,” to report the necessary engineering and administrative data relative to the change. Refer to Section 5-3, “Change Orders,” of this manual for details.

Form CEM-4904 Caltrans Authorization for Using Internet Extra Work Bill System

The resident engineer completes this form, outlining contract markups and change order bill roles, to authorize Caltrans staff access to the Caltrans Internet Extra Work Bill (iEWB) system. The resident engineer submits the form, along with completed Form CEM-4905 from the contractor, to the appropriate iEWB district administrator.

Form CEM-4905 Contractor Authorization for Using Internet Extra Work Bill System

The contractor furnishes the resident engineer with daily reports of any extra work as required in Section 5-1.27D, “Cost Accounting Records,” of the *Standard Specifications*. The prime contractor completes this form for authority to use the internet to submit change order bills. The contractor submits this form, usually at the preconstruction meeting, to the resident engineer or to the managing partner if the contract is a joint venture. Required change order bill training and the iEWB website provide additional information at:

<http://www.dot.ca.gov/hq/construc/iewb/>

Form CEM-4906 Internet Extra Work Bill (iEWB) User Account Request Form

The contractor uses this form after completing the Internet Extra Work Billing (iEWB) system training to request a user account in the iEWB system. The contractor submits the completed form to the resident engineer for approval. The resident engineer submits the form to the appropriate iEWB district administrator for processing.

Form CEM-4907 Tentative Daily Extra Work Agreement

The resident engineer and assistant resident engineers use this form to record daily labor, equipment, and materials used on work paid at force account that has been authorized through an approved change order. Signatures by both Caltrans and

contractor representatives signify tentative agreement on the extra work to avoid potential disagreements with later billing and payment.

Form CEM-4910 Value Engineering Change Proposal Submittal

The contractor uses this form to submit a value engineering change proposal submittal for the Department's consideration. For details on the use of this form, refer to Section 3-405, "Value Engineering," of this manual.

Form CEM-4911 Value Engineering Change Proposal Acceptance/Rejection

The resident engineer uses this form to document the outcome of each value engineering change proposal submittal. For details on the use of this form, refer to Section 3-405, "Value Engineering," of this manual.

Form CEM-5101 Request for Payment for Materials on Hand

The contractor uses this form to request payment for materials on hand. Instructions for the form and administrative procedures are covered in Section 3-9, "Payment," of this manual.

Form CEM-5105 Materials on Hand Summary

The resident engineer uses this form to track, authorize, and document payments for materials on hand. Instructions for the form and administrative procedures are covered in Section 3-9, "Payment," of this manual.

Form CEM-5500 Partnering Facilitator Registration

The facilitator applicant to the Caltrans Partnering Program must submit this registration form to the resident engineer and email address Partnering.Program@dot.ca.gov before performing any work. The form must be submitted for each Caltrans project on which the facilitator participates.

Form CEM-5501 Partnering Facilitator Evaluation—Kick-Off

The resident engineer uses this form to gather project team evaluations of the partnering facilitator's performance following the kick-off partnering workshop when partnering is implemented on a Caltrans construction project.

Form CEM-5502 Partnering Facilitator Evaluation—Closeout

The resident engineer uses this form to gather project team evaluations of the partnering facilitator's performance following the close-out partnering workshop.

Form CEM-5773 Americans with Disabilities Act (ADA) Project Compliance Certification

The resident engineer uses this form to certify ADA construction compliance of the project's pedestrian facilities. For details on the use of this form, refer to Section 4-73, "Concrete Curbs and Sidewalks," of this manual.

Form CEM-5773ADE Curb Ramp (Case A, D, or E) Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of Case A, D or E curb ramps. For details on the use of this form, refer to Section 4-73, “Concrete Curbs and Sidewalks,” of this manual.

Form CEM-5773B Curb Ramp (Case B) Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of Case B curb ramps. For details on the use of this form, refer to Section 4-73, “Concrete Curbs and Sidewalks,” of this manual.

Form CEM-5773C Curb Ramp (Case C) Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of Case C curb ramps. For details on the use of this form, refer to Section 4-73, “Concrete Curbs and Sidewalks,” of this manual.

Form CEM-5773CH Curb Ramp (Case CH) Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of Case CH curb ramps. For details on the use of this form, refer to Section 4-73, “Concrete Curbs and Sidewalks,” of this manual.

Form CEM-5773CM Curb Ramp (Case CM) Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of Case CM curb ramps. For details on the use of this form, refer to Section 4-73, “Concrete Curbs and Sidewalks,” of this manual.

Form CEM-5773DW Sidewalk at Driveway Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of sidewalks at driveways. For details on the use of this form, refer to Section 4-73, “Concrete Curbs and Sidewalks,” of this manual.

Form CEM-5773FG Curb Ramp (Case F or G) Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of Case F or G curb ramps. For details on the use of this form, refer to Section 4-73, “Concrete Curbs and Sidewalks,” of this manual.

Form CEM-5773NSPL Curb Ramp (Non-Standard Plan - Parallel) Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of non-standard plan, parallel curb ramps. For details on the use of this form, refer to Section 4-73, "Concrete Curbs and Sidewalks," of this manual.

Form CEM-5773NSPP Curb Ramp (Non-Standard Plan - Perpendicular) Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of non-standard plan, perpendicular curb ramps. For details on the use of this form, refer to Section 4-73, "Concrete Curbs and Sidewalks," of this manual.

Form CEM-5773P Parking Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of accessible parking facilities. For details on the use of this form, refer to Section 4-73, "Concrete Curbs and Sidewalks," of this manual.

Form CEM-5773PW Passageway Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of passageways. For details on the use of this form, refer to Section 4-73, "Concrete Curbs and Sidewalks," of this manual.

Form CEM-5773SW Sidewalk Americans with Disabilities Act (ADA) Compliance Inspection Report

The resident engineer uses this form to document inspection and ADA compliance of sidewalks. For details on the use of this form, refer to Section 4-73, "Concrete Curbs and Sidewalks," of this manual.

Form CEM-5803A Electrical System Inspection Checklist

The resident engineer uses this form to document that all components in an electrical system have been inspected and comply with the contract requirements. One form needs to be completed for each electrical system.

Form CEM-5803B Detector Loop Inspection Checklist

The resident engineer uses this form to document that all detector loops in an electrical system have been tested and comply with the contract requirements. One form needs to be completed for each electrical system.

Form CEM-5819A Cable Verification Worksheet

The contractor uses this form to document that each fiber-optic cable delivered to the job site has been tested, before installation, and complies with the contract requirements. One form needs to be completed per cable.

Form CEM-5819B Segment Verification Worksheet

The contractor uses this form to document that each fiber-optic segment installed has been tested, before splicing, and complies with the contract requirements. One form needs to be completed per segment.

Form CEM-5819C Link Loss Budget Worksheet

The contractor uses this form to document that each fiber-optic link has been tested, before equipment is connected, and complies with the contract requirements. One form needs to be completed per link.

Form CEM-6003 Progress Pay—Estimate Project Initiation or Update

The resident engineer uses this form to add new information or to change information in the Contract Administration System (CAS). For details refer to Section 5-103B, “Project Initiation and Update,” of this manual.

Form CEM-6004 Contract Transactions Input

The resident engineer uses this form to input estimate data into CAS for the project record and estimate. Refer to Section 5-103C, “Contract Transactions,” of this manual for details.

Form CEM-6101 Project Record—Estimate Request

The resident engineer uses this form to request that an estimate be run. Refer to Section 5-103F (1), “Procedure,” of this manual for details.

Form CEM-6200 Candidate Application for Dispute Resolution Board (DRB) Member/Dispute Resolution Advisor (DRA)

Application to become a member of a dispute resolution board or become a dispute resolution advisor for Caltrans projects, listing qualifications and expertise.

Form CEM-6201D Initial Potential Claim Record

The contractor uses this form to detail the nature and circumstances of the potential claim. For details on the use of this form, refer to Section 5-4, “Disputes,” of this manual.

Form CEM-6201E Supplemental Potential Claim Record

The contractor uses this form to detail the potential claim and cost associated with the claim. For further details on the use of this form, refer to Section 5-4, “Disputes,” of this manual.

Form CEM-6201F Full and Final Potential Claim Record

The resident engineer uses this form to document the circumstances and costs associated with the potential claim. For details on the use of this form, refer to Section 5-4, “Disputes,” of this manual.

Form CEM-6202 Dispute Resolution Board (DRB)—Establishment Report

The Dispute Resolution Board (DRB) chair completes this form upon establishing the DRB and emails it to the resident engineer and the alternative dispute resolution (ADR) engineer at ADR.Engineer@dot.ca.gov. For details on the use of this form, refer to Sections 3-522, “Alternative Dispute Resolution Processes” and 5-4, “Disputes,” of this manual.

Form CEM-6203 Dispute Resolution Board (DRB) Update Report

The resident engineer completes and submits this form to the Division of Construction yearly beginning on the anniversary of the contract time start. For details on the use of this form, refer to Section 5-4, “Disputes,” of this manual.

Form CEM-6204 Dispute Resolution Board (DRB) —Dispute Meeting Report

The Dispute Resolution Board (DRB) chair completes Sections 1 through 5 of this form within 35 days of the dispute meeting and emails it to the resident engineer and the alternative dispute resolution (ADR) engineer at ADR.Engineer@dot.ca.gov. The resident engineer completes Section 6 of this form and emails it to ADR.Engineer@dot.ca.gov. Section 7 is for DRB chair and resident engineer's comments. For details on the use of this form, refer to Sections 3-522, “Alternative Dispute Resolution Processes” and 5-4, “Disputes,” of this manual.

Form CEM-6205 Dispute Resolution Board (DRB)—Completion Report

The resident engineer completes and submits this form to the Division of Construction 30 days after receipt of the contractor's exceptions to the proposed final estimate. For details on the use of this form, refer to Section 5-4, “Disputes,” of this manual.

Form CEM-6206 Dispute Resolution Advisor—Establishment Report

The Dispute Resolution Advisor (DRA) completes this form upon establishing the DRA and emails it to the resident engineer and the alternative dispute resolution (ADR) engineer at ADR.Engineer@dot.ca.gov. For details on the use of this form, refer to Sections 3-522, “Alternative Dispute Resolution Processes” and 5-4, “Disputes,” of this manual.

Form CEM-6207 Dispute Resolution Advisor (DRA)—Dispute Meeting Report

The Dispute Resolution Advisor (DRA) completes Sections 1 through 5 of this form within 15 days of the dispute meeting and emails it to the resident engineer and the

alternative dispute resolution (ADR) engineer at ADR.Engineer@dot.ca.gov. The resident engineer completes Section 6 of this form and emails it to ADR.Engineer@dot.ca.gov. Section 7 is for DRA and resident engineer's comments. For details on the use of this form, refer to Sections 3-522, "Alternative Dispute Resolution Processes" and 5-4, "Disputes," of this manual.

Form CEM-6208 Dispute Resolution Ladder Establishment

As an option, the resident engineer completes and submits this form to the Division of Construction to document the levels of authority consulted. For details on the use of this form, refer to Section 5-4, "Disputes," of this manual.

Form CEM-6209 Elevation of a Dispute

As an option, the resident engineer completes and submits this form to the Division of Construction to assist in defining the dispute before elevating it to the next level. For details on the use of this form, refer to Section 5-4, "Disputes," of this manual.

Form CEM-6210 Alternative Dispute Resolution—Progress Meeting Report

The dispute resolution board chair or the dispute resolution advisor complete Sections 1 through 8 of this form within 10 days of a meeting and email it to the resident engineer, contractor, and alternative dispute resolution (ADR) engineer at ADR.Engineer@dot.ca.gov. The resident engineer and contractor complete Section 9 of this form and email it to the alternative dispute resolution (ADR) engineer at ADR.Engineer@dot.ca.gov.

Form CEM-6214 Dispute Resolution Chargeable Hours Authorization

The resident engineer completes this form to document dispute resolution hours and fees agreed to by parties in a dispute, and to track tasks associated with such disputes.

Form CEM-6220 Dispute Resolution Board (DRB) Member/Dispute Resolution Advisor (DRA) Resume

DRB members or DRAs must submit this form whenever changes occur to current employment, ongoing consulting services, or when approved as a DRB member or as a DRA by the parties, Caltrans and the contractor. Submit the completed electronic PDF form to ADR.Engineer@dot.ca.gov. Approved DRB members and DRAs list their credentials, which are filed with Caltrans for use in disputes that would benefit from their work experience and expertise.

Form CEM-6301 Contract Acceptance

The resident engineer uses this form to document acceptance and the various quantities delivered by the contract. Instructions are on the back of the form. For details on the use of this form, refer to Section 3-523B, "Contract Acceptance," of this manual.

The district does not need to fax a copy of Form CEM-6301, “Contract Acceptance,” to the Division of Construction. If there is a federal number on the form, the district estimate desk makes a copy of the form and, at the end of each month, collects and sends these copies to the Caltrans Office of Federal Resources, MS-24.

Form CEM-6302 Final Materials Certification

The resident engineer uses this form to document that tests on acceptance samples indicate the materials incorporated in the construction work, and the construction operations controlled by sampling and testing, were in conformity with the authorized plans and specifications.

Form CEM-9001 Construction Manual Proposed Change

Caltrans personnel or external stakeholders may use this form to submit a recommendation for a change to the *Construction Manual*. Completed forms with supervisor approval and attachments, if applicable, should be sent to the Division of Construction, Publications Unit email:

Construction.Publications@dot.ca.gov.

Form OFG-1 Oversight Resident Engineer’s Preconstruction Checklist

The resident engineer uses this form to document contacts within the local agency where the work is being performed. For further details on use of this form, refer to Section 3.1.7, “Oversight Resident Engineer Files,” of the *Oversight Resident Engineer Guidelines*.

*Form OFG-2 Local Agency and Oversight Resident Engineer
Preconstruction Conference Checklist*

The resident engineer uses this form to document general project conditions at the preconstruction meeting with the contractor. For details on use of this form, refer to Section 3.1.7, “Oversight Resident Engineer Files,” of the *Oversight Resident Engineer Guidelines*.

*Form OFG-3 Local Agency Resident Engineer Contract Provisions
Checklist*

The resident engineer uses this form to document state and federal requirements with the contractor. For details on use of this form, refer to Section 3.1.7, “Oversight Resident Engineer Files,” of the *Oversight Resident Engineer Guidelines*.

*Form OFG-4 Oversight Resident Engineer’s Construction Contract
Administration Verification Checklist*

The resident engineer uses this form to document the contract administration activities required on the project. For details on use of this form, refer to Section 3.1.7, “Oversight Resident Engineer Files,” of the *Oversight Resident Engineer Guidelines*.

Form OFG-5 *Federal-Aid Projects of Division Interest*

The resident engineer uses this form to document federal-aid requirements for the project. For details on use of this form, refer to Section 3.1.7, “Oversight Resident Engineer Files,” of the *Oversight Resident Engineer Guidelines*.

Form OFG-6 *Final Acceptance Checklist for Caltrans Oversight Projects*

The resident engineer uses this form to document that all required procedures have been performed on the project. For details on use of this form, refer to Section 3.1.7, “Oversight Resident Engineer Files,” of the *Oversight Resident Engineer Guidelines*.

Form PM-S-0110 *Safety Meeting Report*

The construction engineer or resident engineer must use **the Tailgate Safety Meeting electronic application** to document a tailgate safety meeting **on this form** with all employees to discuss the project and potential safety issues that may arise from contractor operations. **The completed report is filed automatically from the application in the project folder in the FalconDMS.**

5-101C Materials Engineering and Testing Services Forms

Structural Materials, under Materials Engineering and Testing Services (METS), is responsible for TL (transportation labs) forms. Find some forms under Engineering Services’ Testing and Technology Services link at:

<http://cefs2.dot.ca.gov/jsp/forms.jsp>

Form MR-0518 *Job Cement Samples Record*

The resident engineer uses this form to submit cement samples for testing. Instructions for the use of this form are found in Section 6-2, “Acceptance of Manufactured or Fabricated Material and Products,” of this manual.

Form TL-0015 *Quality Assurance—Nonconformance Report*

METS uses this form when METS personnel discover that structural material or quality control procedures do not meet specific contract requirements. METS sends a copy to the resident engineer.

Form TL-0016 *Quality Assurance—Nonconformance Resolution*

METS uses this form to document the resolution to an outstanding Form TL-0015. METS sends a copy to the resident engineer.

Form TL-0028 *Notice of Materials to Be Inspected at Job Site*

METS uses this form to assign inspection duties. METS sends a copy to the resident engineer.

Form TL-0029 *Report of Inspection of Material*

METS uses this form to confirm that material has been inspected, and the inspector has attached inspection release tags or other means of identification. METS sends a copy to the resident engineer, who compares it with inspection tags or markings on delivered materials.

Form TL-0038 *Inspection Request*

METS uses this form to document requests by the vendor or fabricator for bid items that require inspection.

Form TL-0101 *Sample Identification Card*

The resident engineer uses this form to submit samples to METS or district materials laboratories for testing materials other than field samples of concrete (compressive strength) and cement samples.

Form TL-0502 *Field Sample of Portland Cement Concrete Sample Card*

The resident engineer uses this form to submit compressive strength samples of concrete. Refer to Section 6-3, "Field Tests," of this manual for details on marking of samples.

Form TL-0608 *Notice of Materials to be Furnished*

METS uses this form to inform all parties that METS will inspect and release material before it's sent to the job site. TL-0038, "Inspection Request," is included with the TL-0608 that is sent to the vendor and fabricator.

Form TL-0624 *Inspection Release Tag*

When a METS inspector has inspected material, the inspector will attach this form with lot numbers, inspector's initials, and date of inspection. When it is not feasible to attach tags, the METS inspector will mark lot numbers on the material.

Form TL-0625 *Materials Suitability Tag*

METS uses this form to verify that a quality assurance inspector has inspected the material and released it to the job site. A blue tag attached to the material includes the contract number, state lot number, blue tag number, inspector's initials, and date of inspection. When it is not feasible to attach tags, the METS inspector will mark lot numbers on the material.

Form TL-0649 *Report of Materials on Hand*

METS uses this form to verify that material has been inspected and is in acceptable condition. Refer to Section 3-9, "Payment," of this manual for details.

Form TL-6013 Toll Material Suitability Documentation Report

METS structural material representative, in consultation with the resident engineer and design staff as needed, completes this form. The form documents the decision to release material that is tagged with TL-0625 and is listed in TL-6014.

Form TL-6014 Material Suitability Report

This form is completed by the METS quality assurance inspector and is used to list the material to be released with TL-0625. The report includes material description, blue tag number, and description of conformance.

Form TL-6037 Fabrication Progress Report

METS uses this form to notify resident engineers of progress being made on fabrication of various items. Refer to Section 3-9, "Payment," of this manual for details.

Some METS forms can be found at the Caltrans Electronic Forms System's website:

<http://cefs.dot.ca.gov/jsp/forms.jsp>

5-101D Other State Forms

Following are state forms used in contract administration that are not issued by the Division of Construction or METS. They are available on the Caltrans Electronic Forms System's website:

<http://cefs.dot.ca.gov/jsp/forms.jsp>

Form DPD-3013 Request for Construction Staking

The contractor uses this form to request construction staking. The resident engineer and the survey party chief add information to the request. It serves as a record of construction staking and any charges to the contractor for restaking. For information on construction surveys and use of the form, refer to Chapter 12, "Construction Surveys," of the *Caltrans Surveys Manual*.

Form LA-17 Report of Chemical Spray Operations

The contractor uses this form to submit the required weekly pesticide application report. Refer to Section 4-2002C (2), "Pesticides," of this manual for details.

5-101E Traffic Operations Forms

The following forms from the Division of Traffic Operations are at:

<http://cefs2.dot.ca.gov/jsp/forms.jsp>

Form TR-0019 Notice of Change in Clearance or Bridge Weight Rating

The resident engineer uses this form to report permanent changes to vertical or horizontal clearance for vehicular traffic or permanent changes in bridge permit ratings on divided roadways. Refer to Section 3-703B, "Permanent Clearance and Bridge Permit Rating Changes," of this manual for details.

Form TR-0020 Notice of Change in Vertical or Horizontal Clearance

The resident engineer uses this form to report permanent changes to vertical or horizontal clearance for vehicular traffic. Refer to Section 3-703B, "Permanent Clearance and Bridge Permit Rating Changes," of this manual for details.

Form TR-0029 Notice of Change in Clearance or Bridge Weight Rating

The resident engineer uses this form to report permanent changes to vertical or horizontal clearance for vehicular traffic or permanent changes in bridge permit ratings on undivided roadways. Refer to Section 3-703B, "Permanent Clearance and Bridge Permit Rating Changes," of this manual for details.

Form TR-0030 Work Zone Category 1 Temporary Traffic Control Device Certificate of Crashworthiness

The resident engineer provides this standard form to the contractor for them to self-certify the Category 1 temporary traffic control devices used on the contract. Refer to Section 4-1202B, "Temporary Traffic Control Devices" of this manual for details.

Form TR-0405 Certification of Compliance with Americans with Disabilities Act (ADA)

The resident engineer uses this form to certify compliance with ADA standards prior to and after construction. Refer to Design Information Bulletin 82-06 at the website:

<https://dot.ca.gov/programs/design/design-information-bulletins-dibs>

5-101F Federal Forms

Following is a list of some federal forms that are used in contract administration. Obtain the forms from the U.S. Department of Transportation, Federal Highway Administration's website:

<https://www.fhwa.dot.gov/eforms/>

Form FHWA-1391 Federal-Aid Highway Construction Contractors Annual EEO Report

The contractor must submit this form on all federal-aid contracts over \$10,000. All subcontractors on federal-aid projects whose subcontracts exceed \$10,000 must also submit the form. Contractors and subcontractors report project employment data for the last full week of July on the form.

Form DOL SF-308 Request for Wage Determination and Response to Request

Request wage rate determinations for federal-aid contracts by using this U.S. Department of Labor form. Obtain the form from the U.S. Department of Labor's website:

<https://www.dol.gov/whd/programs/dbra/sf308.htm>

5-102 Organization of Project Documents

5-102A General

This section describes the uniform filing system for organizing project records and reports. The system uses numbered categories for filing project documents. Use the uniform filing system on all projects.

There are 63 categories in the filing system. There are several unassigned categories. Use them for project documents that do not fit in assigned categories. If necessary, divide a category into subcategories.

Assign the appropriate category numbers to documents filed at a separate location, such as a field office. The filing system will then be correct when records are brought together after project completion. Project records may be scanned and stored electronically. Maintain hard copy files as a backup before project completion.

Construction projects awarded on or after July 1, 2021, are required to store all project records electronically on the Caltrans Falcon electronic document management system (FalconDMS). By adopting available technology and electronically storing project records on the FalconDMS, accessibility to these documents will be improved. Section 5-102C, "Description of Categories," of this manual lists the 63 filing categories required for the proper cataloging of contract documents. Users uploading documents into the FalconDMS will assign electronic indexing called "metadata" to the documents that will automatically file the project records in the corresponding categories as listed in Section 5-102C. This electronic indexing can be used for searching and retrieval of documents stored in the categories. Training is required for all staff before using FalconDMS. Request FalconDMS training or assistance downloading FalconDMS software in an email to FalconDMS.Construction@dot.ca.gov.

Training material and contact information for FalconDMS can be found on the Division of Construction's Office of Performance and Innovation Onramp page.

Construction projects awarded before July 1, 2021, may use FalconDMS, if practical, or continue to maintain project records in hardcopy form.

5-102B Indexing

For hardcopy paper filing of projects, use a category index, similar to the table in Section 5-102D, "Category Numbers and Headings," of this manual, for each project. Post the index in a prominent location.

When the location of a category is separate from the main file, indicate its location on the index under the appropriate heading.

When FalconDMS is used, as discussed in Section 5-102A, "General," of this manual, the category index is built into the electronic filing system. Proper upload of documents to FalconDMS will allow files to be easily searched across the various indexing fields, or "metadata," defined in the system.

Projects awarded before July 1, 2021, may be switched from a hardcopy filing system to filing the project documents on FalconDMS midway through the project. If that choice is made, the legacy hardcopy project documents should be maintained in their existing form with a note in each category that starting on the date the project switched to filing project documents on FalconDMS and any project documents after that date would be located on the FalconDMS system. It is not required for legacy projects with an award date before July 1, 2021, to store project documents on FalconDMS, but it is encouraged to improve efficiency.

5-102C Description of Categories

The following discussion describes the documents that should be included in each category and, for some categories, a recommended order of the documents in the categories:

Category 1 Project Personnel

Include all personnel-related records in this category. Suggested subcategories are listed below. On smaller projects, some of the listed subcategories may be combined when the amount of detail shown is not warranted.

- Form CEM-0101, "Resident Engineer's Report of Assignment"
- Attendance report
- Overtime records
- Overtime requests and authorizations
- Absence requests
- Personnel transfer records
- Personnel roster
- Travel expense claims and records
- Individual personnel file, such as emergency telephone numbers, experience or training records

Category 2 Project Office Equipment and Supplies

In this category, file documents relating to equipment and supplies. Include records of equipment and supplies that have been received or returned. The subcategories listed below outline the scope of this category.

- Equipment inventory
- Shipping records; related shipping and receiving records should be stapled together
- Receiving records
- Transfer requests
- Local requests

- Automotive records
- Cash expenditure vouchers
- Purchase orders
- Bills of lading

Category 3 Equipment and Personnel Cost Reports

In this category, file construction engineering cost reports. Suggested subcategories are:

- PRSM (task management) reports
- Equipment cost reports

Category 4 Service Contracts

In this category, file documents related to the project office utilities and services. File requests for service with all correspondence relating to project office service contracts in an appropriate subcategory. File the receiving records for bills for utilities and services in a “date received” sequence.

It is recommended that a separate subcategory be used for each company or each service agreement. File purchase orders for supplies in Category 2, “Project Office Equipment and Supplies.”

The subcategories that may be included in this category are:

- Rent
- Electricity
- Gas
- Telephone
- Drinking water
- Overnight mail and shipping service
- Additional service agreements, as required

Category 4 includes only transactions connected with the resident engineer’s office. Do not confuse this category with Category 16, “Utility Agreements,” Category 17, “Utility Work Performed,” or a subcategory of Category 52, “Charges to Total Contract Allotment.” These are part of the project’s construction operations.

Category 5 General Correspondence

In this category, file letters that do not relate to any other category or subcategory in use. File correspondence concerning a subject that directly relates to some other category in that category. For example, file correspondence developed in connection with a change order in the change order category file.

File correspondence in any subcategory in chronological order.

When the volume of correspondence builds up, segregate and divide it into more detailed subject subcategories. When appropriate, transfer correspondence from Category 5 to a more specific category. For example, a property owner may object to certain conditions on the project. After considerable correspondence, the resident engineer writes a change order to solve the problem. At this point, the resident engineer should transfer all of the correspondence related to the change order to the change order category file.

A letter might cover subjects in multiple categories. When the letter relates directly to two subjects, file a copy in each category or cross-reference to the location of the original. Cross-referencing need be only a note describing the letter filed in a different category.

The following are examples of subcategories in Category 5. The number of subcategories will depend on the volume of correspondence. Show all subcategories in the index.

- Request for information and responses
- Request for clarification and responses
- To district office
- From district office
- To Project Development
- From Project Development
- To Maintenance
- From Maintenance
- To Traffic Operations
- From Traffic Operations
- To contractor; for example, letters, transmittals, faxes, memos, email
- From contractor; for example, letters, transmittals, faxes, memos, email
- Property owners
- Utility companies
- Form CEM-0501, "Relief From Maintenance"
- Any additional subcategories that may be required depending on the volume of the correspondence

Category 6 Safety

File project documents relating directly to safety in this category. Suggested subcategories are:

- Employee safety
- Caltrans employee accident and injury reports

- Form CEM-0602, “Project Safety Program Statement”
- Contract documents relating to safety
- Correspondence with the Division of Occupational Safety and Health (Cal/OSHA)
- Form CEM-0606, “Construction Safety Checklist”
- A copy of the contractor’s Injury and Illness Prevention Program
- A copy of the contractor’s *Code of Safe Practices* in use for the project
- **Form PM-S-0110, “Safety Meeting Report”**

Category 7 Public Relations

File documents covering the subject of public relations in this category.

Category 8 Construction Surveys

Use this category for filing all survey documents that do not directly or solely relate to another category.

File Form DPD-3013, “Request for Construction Staking,” in this category. Create subcategories for requests on which staking has been completed and those on which staking has not been completed. Cross-file staking requests that include restaking charges in Category 54, “Deductions from Payment to Contractor.”

Category 9 Welding

In this category, file documents relative to welding in accordance with instructions in Section 180, “Welding,” of the *Bridge Construction Records and Procedures, Vol. 2*, manual.

Category 10 Extra Category Number

Use this extra category number for project documents that do not fit in currently established categories. When used, enter the name of the category on the index sheet.

Category 11 Information Furnished at Start of Project

In this category, file documents related to planning, design, contract funding, advertising, and opening bids. Do not file documents in this category that apply solely or directly to other established categories. Create subcategories as necessary because of the volume of documents:

- Project Report
- Preliminary Report
- Project Expenditure Authorization, including Supplemental Allotments
- Detail Estimate of Project Cost
- Notice of Award of Contract
- Bid Summary Sheets

- Federal Detail Estimate
- Executed Contract, Special Provisions, and Plans
- Notice of Approval of the Contract
- Environmental Permits
- Encroachment Permits and Cooperative Agreements
- Bidder Inquiry Information

Category 12 Contractor

Use this category to file the documents that the contractor is required to submit. Do not use it for general correspondence or documents appropriate to a different category. The following subcategories suggest the scope of the category:

- Contractor's organization, including the designation of the contractor's authorized representative as required by Section 5-1.16, "Representative," of the *Standard Specifications*
- Contractor's equipment list
- Contractor's borrow agreements
- List of subcontractors and other project documents concerning subcontracting
- Shop plans, if not filed under a more appropriate category
- Falsework plans
- Insurance documents, as required in Section 7-1.05, "Indemnification," and Section 7-1.06, "Insurance," of the *Standard Specifications*

Category 13 Signs and Striping

In this category, file all documents related to signing, delineation, and handling public traffic during construction. Suggested subcategories are:

- Layout of Construction Signs
- Detour Design, Striping, and Signing
- Traffic Striping Diagrams

Category 14 Photo Records

File routine photos and their identification in this category. File photos relating to claims in Category 62, "Disputes." It is a good practice to take photos on a monthly basis to document the work during construction. Maintain video recordings and digital photo files in an organized manner. Note the location of these items in this category file.

Suggested subcategories are:

- Before Construction
- During Construction

- After Construction

Category 15 Accidents

In this category, file documents related to accidents. Subcategories may include:

- Caltrans Employee Accident and Injury Reports
- Caltrans Vehicle Accident Reports
- California Highway Patrol Accident Reports
- Local Police Accident Reports
- Records and Investigations of Public Traffic Accidents
- Records and Investigations of Contractor Incidents

Category 16 Utility Agreements

In this category, file documents that relate to work to be done to utility facilities in connection with the project.

Create subcategories for utility companies. Set up second-level subcategories when required by the number of documents. The following are examples of subcategories within this category:

- 16.1.1 PG&E Co.—Agreements
- 16.1.2 PG&E Co.—Relocations
- 16.1.3 PG&E Co.—Encroachment Permit
- 16.2 AT&T Corp.
- 16.3 Union Pacific Railroad.

Category 17 Utility Work Performed

In this category, file daily reports and other records of utility facility work. Create the same primary subcategories as those used in Category 16, “Utility Agreements.”

Create second level subcategories when required by the number of documents and the amount of work. For example, if the work would develop daily reports and receiving records of only one utility relocation, these documents could be kept in one subcategory in chronological order. When the same utility company has more than one relocation, a more detailed breakdown is advisable.

Category 18 Agreements

In this category, file non-utility agreements with third parties or other state or county agencies. The number and levels of subcategories will depend upon the agreements and the nature and extent of the work involved. A list of suggested subcategories includes:

- Right-of-Way Agreements—Without Obligations
- Right-of-Way Agreements—With Obligations

- Forest Service Agreements
- Borrow Agreements between Caltrans and owner
- Disposal Agreements between Caltrans and owner
- Service Agreements, which are utility service agreements such as for highway lighting
- Disposal Permits
- Records of Royalty Payments
- Encroachment Permits

File an encroachment permit relating to a utility facility agreement under Category 16, "Utility Agreements." File an encroachment permit relating to a right-of-way agreement in this category.

Where there are several right-of-way agreements requiring some degree of control, such as right-of-way agreements with obligations, maintain a summary to show the status of these agreements. An example of the status summary headings:

- The agreement number
- The location of work to be performed
- A brief description of work to be done and by whom
- When the work is completed
- The change order number if the required work is being done by change order

Category 19 Hazardous Waste and Hazardous Materials

File any information regarding the discovery and removal of hazardous waste in this category.

To comply with the record retention requirements of the ADL Agreement, the resident engineer must retain aerially deposited lead (ADL)-related records as follows:

- File all ADL-related correspondence, reports, data, and records in Category 19, "Hazardous Waste and Hazardous Materials" of the project records.
- File all ADL-related documents included with the resident engineer pending file in Category 19.

Category 20 Water Pollution Control Plan or Stormwater Pollution Prevention Plan

File all correspondence regarding water pollution control plans (WPCP) or stormwater pollution prevention plans (SWPPP) in this category. A list of suggested subcategories:

- Authorized WPCP or SWPPP
- Amendments to WPCP or SWPPP
- Notification of Construction

- Correspondence
- Inspections by Contractor
- Inspections by Caltrans
- Notices of Noncompliance
- Annual Certification of Compliance
- Notice of Completion of Construction

Category 21 Construction or Maintenance Zone Enhanced Enforcement Program

File documents relating directly to the Construction Zone Enhanced Enforcement Program (COZEEP) in this category. Suggested subcategories include:

- Form CEM-2103, “COZEEP/MAZEEP Cancellation Form”
- Form CEM-2102, “COZEEP/MAZEEP Task Order”
- Form CEM-2101, “COZEEP Daily Report”

Category 22 Traffic Management Information

Use this category to file information related to traffic management. Possible subcategories include:

- Contractor lane closure requests
- Lane closure requests submitted to the transportation management center
- Authorized lane closures
- Contractor contingency plans
- Traffic count data

Category 23 Temporary Pedestrian Access Routes

Use this category number for the following:

- Form CEM-2301, “Temporary Pedestrian Access Route Compliance Inspection Report”
- Form CEM-2302, “Temporary Pedestrian Access Route Weekly Inspection Report”
- Form CEM-2303, “Temporary Pedestrian Access Route Sidewalk Detour Inspection Report”
- Form CEM-2311, “Temporary Pedestrian Access Route Contractor Compliance Report”
- Form CEM-2312, “Temporary Pedestrian Access Route Contractor Weekly Report”

Category 24 Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises

Use this category for the following:

- Disadvantaged business enterprises (DBE) and disabled veteran business enterprises (DVBE) correspondence
- The contractor's DBE/DVBE utilization plan
- DBE and DVBE substitution requests and approvals
- DBE and DVBE monthly reports
- Form CEM-2402(F), "Final Report—Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors"
- Form CEM-2403(F), "Disadvantaged Business Enterprises (DBE) Certification Status Change"
- Form CEM-2404(F), "Monthly DBE/UDBE Trucking Verification"
- Form CEM-2407, "Disadvantaged Business Enterprise (DBE) Joint Check Agreement Request"
- Other DBE and DVBE related documents

Category 25 Labor Compliance and Equal Employment Opportunity

In this category, file required labor compliance and equal employment opportunity information. Refer to Sections 8-1, "Labor Compliance," and 8-2, "Equal Employment Opportunity," of this manual for details.

Category 26 Progress Schedule

In this category, file the progress schedule, critical path method submittals, and other related information.

Category 27 Weekly Statement of Working Days

In this category, file Form CEM-2701, "Weekly Statement of Working Days." Also file correspondence relating to contract time in a subcategory of this category.

Category 28 Weekly Newsletter

In this category, file periodic newsletters and reports that are prepared during the project. Include weekly reports of a general nature pertaining to the progress of the contract.

Category 29 Materials Information and Preliminary Tests

In this category, file materials information and preliminary test reports. Suggested subcategories include:

- Materials information
- Report of foundation investigation

- Report of preliminary tests on aggregate base
- Report of preliminary tests on aggregate subbase

Category 30 Basement Soil Test Results

In this category, file basement soil test results taken during the design phase to determine structural section adequacy.

Category 31 Notice of Materials to Be Used

In this category, file Form CEM-3101, “Notice of Materials to Be Used.” Create a system for checking that notices have been received.

Make Form CEM-3101s that contain information for structure items available for use by the structure representative. Consider filing the Form CEM-3101 listing structure items in a separate subcategory of this category.

Category 32 Notice of Materials to Be Inspected at the Job Site

In this category, file Form TL-0028, “Notice of Materials to Be Inspected at Job Site.”

Category 33 Notice of Materials to Be Furnished

In this category, file Form TL-0608, “Notice of Materials to Be Furnished.”

Category 34 Treated Base

In this category, file documents for cement-treated base, cement-treated permeable base, and asphalt-treated permeable base. Do not include documents that are to be filed in other categories, such as Categories 37, “Initial Tests and Acceptance Tests,” or 48, “Bid Item Quantity Documents.”

Use subcategories similar to the examples listed. Create a numbering system that identifies the category, item, and subcategory. For example, 34.26.3 indicates: Category 34 “Treated Bases”; 26 is the contract item number of the material and identifies the subcategory; 3 is the second level subcategory identifying the particular document. For example:

- 34.26.1 Mix design data, cement-treated base
- 34.26.2 Plant records, cement-treated base
- 34.26.3 Spread records, cement-treated base
- 34.27.1 Mix design data, cement-treated permeable base
- 34.27.2 Plant records, cement-treated permeable base
- 34.27.3 Spread records, cement-treated permeable base
- 34.28.1 Mix design data, asphalt-treated permeable base
- 34.28.2 Plant records, asphalt-treated permeable base
- 34.28.3 Spread records, asphalt-treated permeable base
- 34.4 Certificates of compliance for materials used in treated bases

Category 35 Hot Mix Asphalt

In this category, file documents related to hot mix asphalt, except those to be filed in categories such as 37 or 48. Following are suggested subcategories:

- Form CEM-3501, “Hot Mix Asphalt Production Report”
- Form CEM-3502, “Hot Mix Asphalt Placement Report”
- Form CEM-3511, “Contractor Job Mix Formula Proposal”
- Form CEM-3512, “Contractor Hot Mix Asphalt Design Data”
- Form CEM-3513, “Caltrans Hot Mix Asphalt Verification”
- Certificates of compliance for materials used in hot mix asphalt

Category 36 Concrete other than structure items

In this category, file documents related to concrete. Do not include documents that are to be filed in categories such as 37, 43, and 48. For structure items, the project documents are to be filed in Category 43, “Concrete and Reinforcing Steel.” Refer to the *Bridge Construction Records and Procedures* manual for details. Following are suggested subcategories:

- 36.1 Portland cement concrete pavement
 - 36.1.1 Mix Designs
 - 36.1.2 Plant Records
 - 36.1.3 Certificates of compliance for materials used in concrete pavement
- 36.2 Portland cement concrete, Class A structure and minor concrete
 - 36.2.1 Mix Designs
 - 36.2.2 Plant Records
 - 36.2.3 Certificates of compliance for materials used in Class A structure concrete and minor concrete

Category 37 Initial Tests and Acceptance Tests

In this category, file initial tests and acceptance tests. File documents in each subcategory chronologically unless there is a specific reason for doing otherwise.

Use subcategories similar to the forms listed. Create a numbering system that identifies the category, item, and subcategory. For example, 37.21.3 indicates: Category 37, “Initial Tests and Acceptance Tests”; 21 is the contract item number of the material and identifies the subcategory; and 3 is the second level subcategory identifying the particular test result.

- Form CEM-3701, “Test Result Summary”
- Form CEM-3702, “Relative Compaction Summary”
- Form CEM-3703, “Caltrans Production Start-Up Evaluation”
- Form CEM-3736, “Pavement Smoothness Inertial Profiler Submittal Record”

- Form CEM-3736AC, Asphalt Concrete Pavement Smoothness Corrections Information”
- Form CEM- 3736C, “Concrete Pavement Smoothness Corrections Information”
- Embankment
 - 37.10.1 Relative Compaction
- Structure Backfill
 - 37.14.1 Sand Equivalent
 - 37.14.2 Relative Compaction
- Aggregate Subbase
 - 37.21.1 Relative Compaction
 - 37.21.2 Moisture
 - 37.21.3 Sieve Analysis
 - 37.21.4 Sand Equivalent
 - 37.21.5 Record of Thickness
 - (summarized in the order that measurements are made)
- Aggregate Base
 - 37.22.1 Relative Compaction
 - 37.22.2 Moisture
 - 37.22.3 Sieve Analysis
 - 37.22.4 Sand Equivalent
 - 37.22.5 Record of Thickness
 - (summarized in the order that measurements are made)
- Hot Mix Asphalt
 - 37.31.1 Aggregate Gradation
 - 37.31.2 Asphalt Binder Content
 - 37.31.3 Maximum Theoretical Density (percent)
 - 37.31.4 Sand Equivalent (minimum)
 - 37.31.5 Stabilometer Value (minimum)
 - 37.31.6 Air Voids Content
 - 37.31.7 Crushed Particles
 - 37.31.8 Moisture Content
 - 37.31.9 Los Angeles Abrasion Test
 - 37.31.10 Fine Aggregate Angularity

- 37.31.11 Flat and Elongated Particle
- 37.31.12 Voids in Mineral Aggregate
- 37.31.13 Voids with Asphalt
- 37.31.14 Dust Proportion
- 37.31.15 Smoothness
- 37.31.16 Asphalt Binder
- 37.31.17 Asphalt Rubber Binder
- 37.31.18 Asphalt Modifier
- 37.31.19 Crumb Rubber Modifier
- 37.31.20 Certificates of Compliance for Materials Used in Hot Mix Asphalt
- Portland Cement Concrete Pavement
 - 37.42.1 Sand Equivalent
 - 37.42.2 Cleanness Value
 - 37.42.3 Sieve Analysis
 - 37.42.4 Modulus of Rupture
 - 37.42.5 Penetration Values
 - 37.42.6 Cement Content
 - 37.42.8 Coefficient of Friction
 - 37.42.9 Other related items

Bills of lading and copies of sample identification tags may be filed in this category temporarily and discarded when their respective test reports are filed.

File test results for items assigned to Structure Construction personnel in this category in accordance with instructions contained in the *Bridge Construction Records and Procedures* manual.

Category 38 Quality Control

In this category, include all documents relating to quality control. Create a subcategory system to include the following:

- Forms CEM-3801, “Request for Assignment of Inspectors, Samplers, and Testers” and Form CEM-3802, “Quality Control Inspector Affidavit of Proficiency”
- Form CEM-3803, “Daily Summary of Quality Control Testing”
- Form CEM-3804, “Hot Mix Asphalt Inspection and Testing Summary”
- Copies of related correspondence

Category 39 Materials Testing Qualification of Employees

In this category, file copies of certifications of the employees performing acceptance tests.

Category 40 Field Laboratory Assistant Reports to Resident Engineer

In this category, file chronologically any reports made by the project's materials tester. For more than one type of report, such as a report and a summary form, provide subcategories.

Category 41 Report of Inspection of Material

In this category, file the following forms:

- Form TL-0015, "Quality Assurance—Nonconformance Report"
- Form TL-0016, "Quality Assurance—Nonconformance Resolution"
- Form TL-0029, "Report of Inspection of Material"
- Form TL-0624, "Inspection Release Tag"
- Form TL-0625, "Material Suitability Tag"
- Form TL-6013 Toll, "Material Suitability Documentation Report"
- Form TL-6014, "Material Suitability Report"
- Form CEM-4101, "Materials Release Summary"
- Form CEM-4102, "Material Inspected and Released on Job"

Create subcategories within Category 41 for each contract item requiring inspection at the source by a METS inspector. Place a summary sheet (use Form CEM-4101, "Materials Release Summary") in each subcategory containing the date of inspection, quantity inspected, cumulative quantity, and lot numbers. The summary sheet documents that materials used in the work have been inspected.

Staple Form TL-0624, "Inspection Release Tag," removed from materials received on the project, to Form TL-0029, "Report of Inspection of Material," on a letter-size sheet of paper and file it in the appropriate subcategory. The sheet should include the name of the engineer who removed it and the date removed. When lot numbers are marked on the items, note the observed lot number on the related Form TL-0029.

Form TL-0625, "Material Suitability Tag," should be attached to the TL-6014, "Material Suitability Report," received from METS and filed.

When the Form TL-0029 includes material for more than one item, include a reference on the summary sheet showing the file location of the TL-0029.

File test reports (usually on Form CEM-4102, "Material Inspected and Released on Job") that cover material sampled on the job in place of source inspection in the appropriate subcategory of this category, not in Category 37, "Initial Tests and Acceptance Tests."

File reports of inspection or certificates of compliance for materials assigned to the structure representative in this category in accordance with instructions contained in *Bridge Construction Records and Procedures* manual.

Category 42 Material Plants

In this category, file Form CEM-4202, “Material Plant Safety Checklist,” and all other project documents pertaining to material plant inspections.

Category 43 Concrete and Reinforcing Steel

In this category, file documents relative to concrete and reinforcing steel in accordance with instructions in the *Bridge Construction Records and Procedures* manual.

Category 44 Recycle Materials and Diversion of Solid Waste

In this category, file a completed copy of Form CEM-4401, “Solid Waste Disposal and Recycling Report.” The contractor completes Form CEM-4401 and the resident engineer reviews the form within the reporting time constraints. The use of this form is described in Section 7-109, “Solid Waste Disposal and Recycling Reporting,” of this manual.

Category 45 Resident Engineer’s Daily Reports

In this category, file Form CEM-4501, “Resident Engineer’s Daily Report/Assistant Resident Engineer’s Report,” and the structure representative’s daily report.

Category 46 Assistant Resident Engineer’s Daily Reports

In this category, file Form CEM-4601, “Assistant Resident Engineer’s Daily Report.”

Subcategories may be used. They may vary depending on the complexity of the project and the desires of the district. The resident engineer and the structure representative must agree on the subcategories before the start of work. The following procedures establish the subcategories.

1. Reports Covering Contract Items

Create a subcategory for each major operation so that all items affecting the major operations are grouped. An example of a system for a relatively large project follows.

Modify the category breakdown to conform to the size and nature of the project. Make the breakdown narrow enough so that reports covering any particular contract item may be obtained with ease. Review the breakdown to verify that it includes all contract items.

Make as many daily reports as necessary to cover all contract item work in the appropriate subcategories.

As indicated in Example 5-1.1, set up a separate subcategory for each structure.

Example 5-1.1 Subcategories for project files

Category and Subcategory	Subject	Contract Items in the Operation
46.1	Chronological	All
46.2	Clearing and Grubbing	5
46.3	Roadway Excavation, Ditch Excavation Aggregate Subbase	8,13,11,15,22
46.4	Salvage Fence, Fence Gates	2,78,79,80
46.5	Guard Railing, Markers, Barricades	1,4,82,83,87
46.6	AB, CTB	23,24
46.7	Hot Mix Asphalt Slurry Seals, Dikes	28,29,30,31,32
46.8	Concrete Paving	35,36,37
46.9	Curbs and Sidewalks Slope Paving, Curb Drains, Spec. Gutter Drains	73,74,76,77
46.10	Minor Str., Precast MH and DI, Reinf. Steel, Misc. Iron and Steel	42,69,70,46,75
46.11	RCP, CMP, SSP ARCH, Drainage Gates, Under/Down Drain, Str Exc., Str. Backfill	9,11,58
46.12	Preparing Slopes, Straw	16,17,18,19,20
46.13	Permanent Signing	52,53,54,55
46.14	Hwy Lighting and Sign Illumination	88
46.15	Finishing Roadway	21
46.16	Structure 1	89,90,91
46.17	Structure 2	89,90,91

2. Reports Covering Extra Work

Pending receipt of the contractor's billing, file chronologically the original and one copy of Form CEM-4601, "Assistant Resident Engineer's Daily Report," covering extra work in a subcategory of this category. After receiving the change order bill report and approving payment, record the change order bill number on both copies of the daily report covering the extra work. Keep one copy of the daily report in this chronological file and use it to detect future billings for the same work. File the second copy with the daily extra work report in Category 49, "Change Orders."

Change order bills for material should show the date the material was supplied or placed and referenced to the invoice so that the particular material

may be readily identified. Keep a summary of invoices paid and use it as a check against duplicate payment.

The specific system used for filing resident engineer's and assistant resident engineer's daily reports is optional, except for extra work. However, Category 45 and 46 must be used and the file index must clearly show the specific system being used.

Category 47 Drainage Systems

To maintain a record of contract items for drainage systems, use Form CEM-4701, "Drainage System Summary."

Use a Form CEM-4701 for each drainage system shown on the drainage quantity plan sheet. The preliminary work required to set up each system summary includes entering the contract number, the system number, planned station and description of the system, and the preliminary or planned quantities, which are entered from the drainage quantity plan sheet.

The assistant resident engineer describes progress on each drainage system in the daily report and enters estimates of work completed on the "Progress Record" portion of the drainage system summary.

Enter the quantity of work completed during an estimate period or near the end of the estimate period for each item in the "Estimate of Work Completed" portion of the drainage system summary. The quantities of work completed may then be entered on Form CEM-6004, "Contract Transactions Input," and paid on the next estimate. Use the extra column next to the item quantity column to identify the Form CEM-6004 page and line number where the quantity was entered. After all items for a particular drainage system have been calculated and checked, the final quantities are entered in the row labeled, "Actual Q."

To keep track of and reduce the number of drainage system summaries that have to be checked at the end of each estimate period, divide the category into subcategories, such as:

- 47.1 Before Work Starts

Place the preliminary drainage summaries in this subcategory in numerical order. Each drainage system summary will remain in this subcategory until work starts on that system.

- 47.2 Staked and Being Worked On

When a drainage system is staked, transfer the drainage summary sheet from index 47.1, "Before Work Starts," to index 47.2, "Staked and Being Worked On." Transfer the individual quantity calculation sheets with the drainage summary.

- 47.3 Drainage System Complete, Final Quantities Not Complete

After all work is completed on a particular drainage system, transfer the summary sheet with its calculation sheets to this subcategory. Removing the summary from the preceding index (47.2, Staked and Being Worked On), precludes having

to go through completed structure summaries at the end of each estimate period when making entries of work completed. Determination of pay quantities should be made as soon as possible after work on the system is complete.

- 47.4 Final Quantities Completed

After all quantity calculations for a drainage system are completed and the adjusted quantities entered into the project record, transfer the summary sheet and its calculation sheets to this subcategory.

Since all drainage quantity calculation sheets will remain filed in Category 47, some item-numbered folders in Category 48 may have no documents.

Category 48 Bid Item Quantity Documents

In this category, file source documents supporting contract item quantities. List the subcategories in Category 48 by contract item number order. Identify individual calculation sheets for the contract items in the following manner. A quantity sheet with the number 48.14.2 indicates that it is sheet number 2 covering contract item number 14 and filed in Category 48, "Bid Item Quantity Documents." Some drainage item quantity documents may be filed in Category 47, "Drainage Systems."

Category 49 Change Orders

In this category, file change orders and supporting documents in numerical order. Subcategories of this category are change order numbers in numerical order.

Contained within each subcategory are:

- The Form CEM-4900, "Change Order," Form CEM-4903, "Change Order Memorandum," and any accompanying correspondence.
- Form CEM-4901, "Change Order Input."
- Daily change order bills and reports matched with assistant resident engineer's daily reports.

Two additional subcategories may be:

- The *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* books applicable to the contract.
- Equipment rental rates and memos covering rates not shown in the *Labor Surcharge and Equipment Rental Rates* book.

Category 50 Adjustment in Compensation Calculations

In this category, file project documents and calculations to support adjustments in compensation.

After a change order is written, the supporting project documents may be transferred to the change order file or remain in this category. Provide cross references between categories 49 and 50 when the supporting documents and calculations remain in Category 50.

List the subcategories under this category by contract item numbers.

Category 51 Materials on Hand

In this category, file Form CEM-5101, "Request For Payment for Materials on Hand," the related evidence of purchase, and any other project documents supporting material on hand payments.

Category 52 Charges to Total Contract Allotment

In this category, file the documents related to and supporting charges to the contract allotment for materials and services supplied by Caltrans.

Divide the category into the subcategories indicated below:

- Department-Furnished Material and Expenses

In this subcategory, file the contractor's letters requesting delivery of Department-furnished materials. Also, save shipping and receiving records on Department-furnished material and file the related records together.

- Service Contracts

In this subcategory, file supporting documents and records of project-related services. These are not the service contracts connected with the project office.

Category 53 Credit to Contract

In this category, include a subcategory to keep a record of any salvaged or surplus material. Also set up a subcategory for copies of daily extra work reports that cover work to maintain and repair damage to state property, except damage the contractor caused. Refer to Section 3-519, "Maintenance and Protection," of this manual.

Credit received for salvaged or surplus material or repair of damage is not applied to the contract allotment and the project is not given credit for any additional money to spend.

Category 54 Deductions From Payment to Contractor

In this category, file documents related to deductions from payments to contractors. Possible subcategories include the following:

- Royalties on material
- Materials bought for the contractor by Caltrans
- Laboratory testing done for the contractor; refer to Section 6, "Control of Materials," of the *Standard Specifications*
- Re-staking, engineering and inspection costs charged to the contractor
- Cost of damaged or missing state-owned signs
- Railroad flagging charges
- Noncompliance with the equal employment opportunity provisions of the contract

- Liquidated damages; refer to Section 3-906G, “Deductions,” of this manual
- Any other deductions; refer to Section 3-9, “Payment,” of this manual

Category 55 Partnering

This category is for filing all documents related to partnering meetings, workshops, and evaluations. Subcategories may include:

- Form CEM-5501, “Partnering Facilitator Evaluation—Kick-Off”
- Form CEM-5502, “Partnering Facilitator Evaluation—Closeout”

Category 56 Extra Category Number

Use this extra category number for project documents that do not fit in currently established categories. When used, enter the name and number of the category on the index sheet.

Category 57 Permanent Pedestrian Facilities

This category is for filing compliance inspection reports, preconstruction and post-construction surveys, and Americans with Disabilities Act (ADA) project compliance certification documents. Subcategories may include:

- Form CEM-5773ADE, “Curb Ramp (Case A, D, or E) Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773B, “Curb Ramp (Case B) Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773C, “Curb Ramp (Case C) Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773CH, “Curb Ramp (Case CH) Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773CM, “Curb Ramp (Case CM) Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773DW, “Sidewalk at Driveway Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773FG, “Curb Ramp (Case F or G) Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773NSPL, “Curb Ramp (Non-Standard Plan - Parallel) Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773NSPP, “Curb Ramp (Non-Standard Plan - Perpendicular) Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773P, “Parking Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Form CEM-5773PW, “Passageway Americans with Disabilities Act (ADA) Compliance Inspection Report”

- Form CEM-5773SW, “Sidewalk Americans with Disabilities Act (ADA) Compliance Inspection Report”
- Pre- and postconstruction surveys
- Form CEM-5773, “Americans with Disabilities Act (ADA) Project Compliance Certification”

Category 58 Extra Category Number

Use this extra category number for project documents that do not fit in currently established categories. When used, enter the name and number of the category on the index sheet.

Category 59 Bridge Estimate Data

In this category, file the bridge estimate data as covered in the *Bridge Construction Records and Procedures* manual.

Category 60 Contract Administration System Inputs and Reports

This category contains documents resulting from CAS. Possible subcategories are:

- Form CEM-6003, “Progress Pay—Estimate Project Initiation or Update”
- Form CEM-6004, “Contract Transactions Input”

The following CAS reports are cumulative. Only the most current results need to be retained.

- Status of Contract Items
- Project Record Item Sheets
- Status of Change Orders
- Change Order Master Listing

Category 61 Estimate and Project Status

In this category, file monthly Project Record-Estimate Request documents. The suggested subcategories of this category are:

- Project Contingency Fund Status
- Estimate

The following documents may be filed by estimate number in numeric order:

- Form CEM-6101, “Project Record—Estimate Request”
- Estimate Verification Form
- Progress Payment Voucher
- Estimate Processing Results
- Project Record-Estimate and Project Status

Category 62 Disputes

In this category, file notes, photographs, information, and other project documents that may be necessary to establish facts with respect to a dispute. Include any documents that may be related to a dispute in this category or briefly describe and cross-reference them.

Number notices of potential claims in chronological order. Use these numbers for subcategories.

The scope of this category may vary considerably, depending upon the nature and circumstances of the dispute. The following types of documents indicate the type of information that should be included:

- Form CEM-6201D, “Initial Potential Claim Record”
- Acknowledgment of the contractor’s dispute
- Disputes Review Board Agreement
- Contractor’s claim for a time extension (cross-reference to Category 27, “Weekly Statement of Working Days”)
- Acknowledgment of the contractor’s claim for time extension
- Other correspondence relating to disputes
- Photographs pertaining to disputes

Category 63 Project Completion Documents

In this category, file documents related to the completion of the project. The following are suggested subcategories:

- Form CEM-6301, “Contract Acceptance”
- Form CEM-6302, “Final Materials Certification”
- Punchlist

5-102D Category Numbers and Headings

Category No.	Heading
1	Project Personnel
2	Project Office Equipment and Supplies
3	Equipment and Personnel Cost Reports
4	Service Contracts
5	General Correspondence
6	Safety
7	Public Relations
8	Construction Surveys
9	Welding

Category No.	Heading
10	(Extra category number)
11	Information Furnished at Start of Project
12	Contractor
13	Signs and Striping
14	Photo Records
15	Accidents
16	Utility Agreements
17	Utility Work Performed
18	Agreements
19	Hazardous Waste and Hazardous Materials
20	Water Pollution Control Plan or Stormwater Pollution Prevention Plan
21	Construction or Maintenance Zone Enhanced Enforcement Program
22	Traffic Management Information
23	Temporary Pedestrian Access Routes
24	Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises
25	Labor Compliance and Equal Employment Opportunity
26	Progress Schedule
27	Weekly Statement of Working Days
28	Weekly Newsletter
29	Materials Information and Preliminary Tests
30	Basement Soil Test Results
31	Notice of Materials to Be Used
32	Notice of Materials to be Inspected at Job Site
33	Notice of Materials to be Furnished
34	Treated Base
35	Hot Mix Asphalt
36	Concrete, other than structure items
37	Initial Tests and Acceptance Tests
38	Quality Control
39	Materials Testing Qualifications of Employees
40	Field Laboratory Assistant Reports to Resident Engineer

Category No.	Heading
41	Report of Inspection of Material
42	Material Plants
43	Concrete and Reinforcing Steel
44	Recycle Materials and Diversion of Solid Waste
45	Resident Engineer's Daily Reports
46	Assistant Resident Engineer's Daily Reports
47	Drainage Systems
48	Bid Item Quantity Documents
49	Change Orders
50	Adjustment in Compensation Calculations
51	Materials on Hand
52	Charges to Total Contract Allotment
53	Credit to Contract
54	Deductions from Payment to Contractor
55	Partnering
56	(Extra category number)
57	Permanent Pedestrian Facilities
58	(Extra category number)
59	Bridge Estimate Data
60	Contract Administration System Inputs and Reports
61	Estimate and Project Status
62	Disputes
63	Project Completion Documents

5-102E Alphabetical Listing of Categories

Category Name	Category No.
Accidents	15
Adjustment of Compensation Calculations	50
Agreements	18
Assistant Resident Engineer's Daily Reports	46
Basement Soil Test Results	30
Bid Item Quantity Documents	48
Bridge Estimate Data	59
Change Orders	49
Charges to Total Contract Allotment	52
Concrete and Reinforcing Steel	43
Concrete, other than structure items	36
Construction Surveys	8
Construction or Maintenance Zone Enhanced Enforcement Program	21
Contract Administration System Inputs and Reports	60
Contractor	12
Credit to Contract	53
Daily Reports, Assistant Resident Engineer's	46
Daily Reports, Resident Engineer's	45
Deductions from Payment to Contractor	54
Disadvantaged Business Enterprises and Disabled Veterans Business Enterprises	24
Disputes	62
Drainage Systems	47
Estimate and Project Status	61
Equipment and Personnel Cost Reports	3
Extra Categories	10, 56, 58
Field Laboratory Assistant Reports to Resident Engineer	40
General Correspondence	5
Hazardous Waste and Hazardous Materials	19
Hot Mix Asphalt	35
Information Furnished at Start of Project	11
Initial Tests and Acceptance Tests	37

Category Name	Category No.
Labor Compliance and Equal Employment Opportunity	25
Materials on Hand	51
Material Plants	42
Materials Information and Preliminary Tests	29
Materials Testing Qualifications of Employees	39
Notice of Materials to be Furnished	33
Notice of Materials to be Inspected at Job Site	32
Notice of Materials to Be Used	31
Partnering	55
Permanent Pedestrian Facilities	57
Photo Records	14
Progress Schedule	26
Project Completion Documents	63
Project Office Equipment and Supplies	2
Project Personnel	1
Public Relations	7
Quality Control Quality Assurance	38
Recycle Materials and Diversion of Solid Waste	44
Report of Inspection of Material	41
Resident Engineer's Daily Reports	45
Safety	6
Service Contracts	4
Signs and Striping	13
Temporary Pedestrian Access Routes	23
Traffic Management Information	22
Treated Base	34
Utility Agreements	16
Utility Work Performed	17
Water Pollution Control Plan or Stormwater Pollution Prevention Plan	20
Weekly Newsletter	28
Weekly Statement of Working Days (Form CEM-2701)	27
Welding	9

5-103 The Contract Administration System

5-103A General

This section describes the Contract Administration System (CAS), sometimes referred to as “the progress pay system.” The primary purpose of this computer system is to help administer Caltrans construction projects. Functional units within the Division of Construction update and maintain records on individual contracts in CAS from the award and approval of the contract through to the completion and final payment.

CAS is one of three subsystems of the Project Information System and Analysis (PISA). The three PISA subsystems that make up the primary computer system that Caltrans uses for tracking contract capital costs are: planning and design, bidding and award, and project construction. Each module of PISA passes data to the next module as a project progresses from conception to completion. Refer to Figure 5-1.1, “Contract Administration System, Systems Interface,” for a general overview of how CAS relates to the other components of the Caltrans computer system used for tracking and paying contract capital costs.

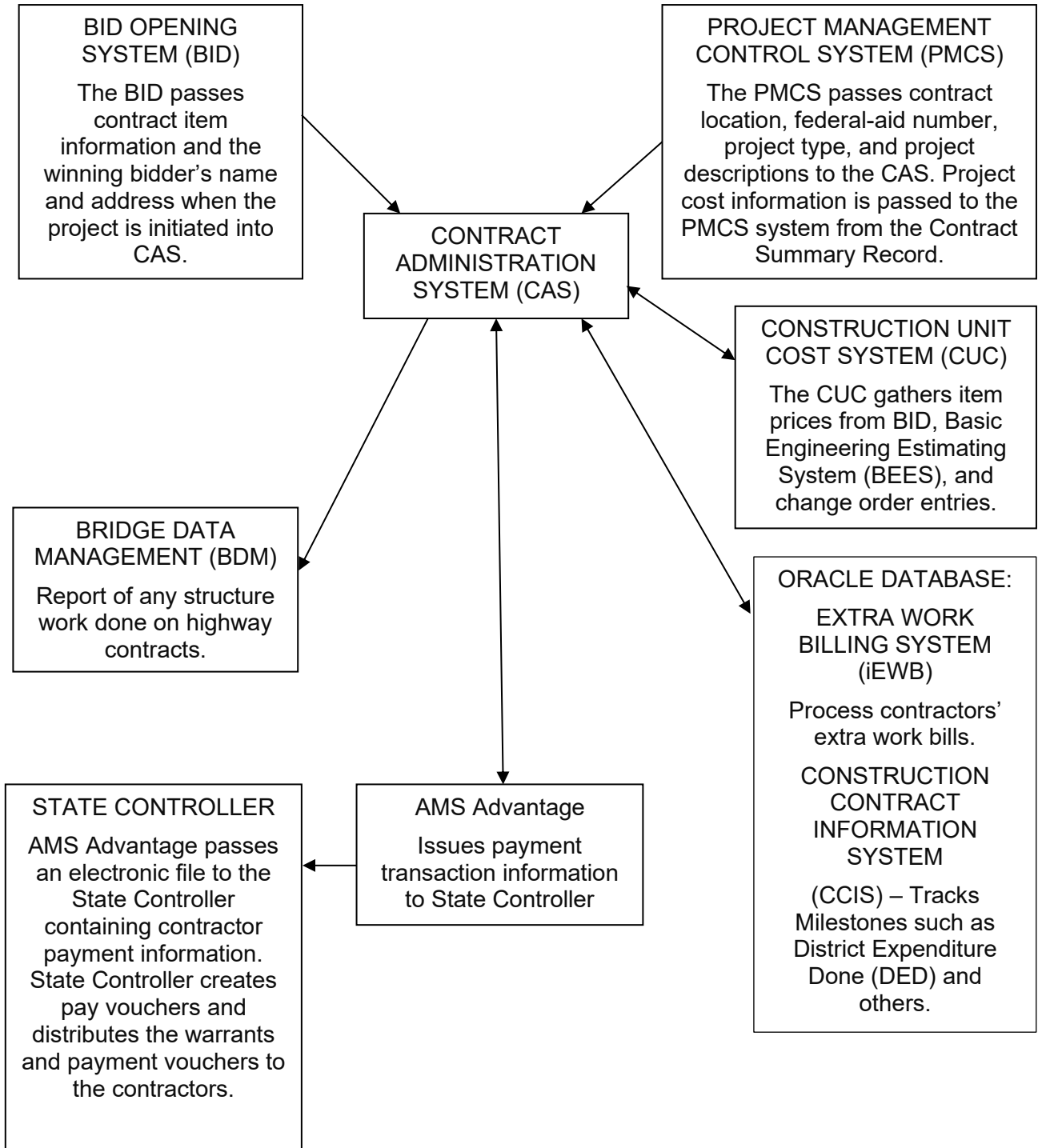
CAS is also composed of separate modules, each of which accomplishes a distinct function. The following are the most common of CAS’ many modules:

- Project initiation and update
- Contract transactions
- Change order
- Daily extra work report
- Project record estimate
- Reports
- Online update and inquiry

Resident engineers use these modules to do the following:

- Account for quantities from source documents
- Account for change orders and payments for extra work
- Determine the status of the projects’ financing
- Authorize payments to contractors

Figure 5-1.1. Contract Administration System, Systems Interface



5-103B Project Initiation and Update

5-103B (1) Major and Minor A Contracts

When Caltrans has determined the lowest responsible bidder, the Office Engineer will transfer project data from the bid opening system to CAS. Usually, this data transfer will occur before awarding the contract and before determining the total allotment. When this information about the award and total allotment becomes available, the Division of Construction will update the computer file by adding to or changing existing information. Items of work are tracked as either federally participating or nonparticipating.

Immediately after the new contract information in the computer file has been transferred from the bid opening system, the data is available to the district for processing. The district must update the file with district information such as the resident engineer's name and address, the bridge representative's name, and the project's password. To perform the update, the district uses Form CEM-6003, "Progress Pay—Estimate Project Initiation or Update," which is explained in more detail in Section 5-103B (3), "Completing Form CEM-6003, 'Progress Pay—Estimate Project Initiation or Update.'" of this manual.

After receipt of the contract award summary, progress pay may be initiated. The Division of Construction progress pay desk verifies the contractor voucher name and address and enters project fund information into CAS from the contract award summary. The district estimate desk verifies the bid open date. Using the CAS data-entry screen, the district estimate desk enters the award, approval, completion, and acceptance dates; the number of working days; the plant establishment period; and time-related overhead information into CAS from the contract award summary, approval memo, and the Form CEM-6301, "Contract Acceptance."

The result of the district's file update will be a dummy Form CEM-6101, "Project Record—Estimate Request," and a contract contents report, which lists contract items. The form and report should be checked thoroughly and any discrepancies brought immediately to the attention of the Division of Construction progress pay coordinator.

During a contract's life, the contractor may request a local address change or a legal name change. The district must maintain the accuracy of local address information in CAS using Form CEM-6003, "Progress Pay—Estimate Project Initiation or Update." The State Controller mails progress payment checks. Only the headquarters Division of Construction progress pay coordinator is authorized to make changes to the address from Form CEM-1202B, "Contractor Action Request—Assignment of Contract Monies, Assignee Change of Name/Address" verified by the resident engineer with the Division of Construction field coordinator's concurrence.

5-103B (2) Emergency Contracts in Excess of Minor B Limits

Payment for all emergency contracts estimated at greater than the Minor B contract limit in construction cost are to be paid through CAS. The Minor B limit is evaluated

and re-established every 2 years and DPAC announces the new policy by issuing a DPAC Information Bulletin and posting it to its Onramp page.

The district performs the initial setup of emergency contracts in CAS using the *Emergency Force Account (EFA) Contract Initiation Instructions in CAS (Contract Administration System)*. The headquarters estimate desk performs the final setup steps. Entering the emergency contract in CAS is typically performed after the “Confirmation of Verbal Agreement” has been issued, but before the contract is authorized. This allows the contractor and the engineer to begin processing change order billings using the iEWB system. Progress estimates are not to be requested until confirming the contract has been authorized and the AMS Advantage contract document has reached the final stage.

To establish a contract in CAS, a minimum of one contract item must be used. This is typically covered by establishing the one item for the amount of the contract payment bond. In order to process change order billings, CAS requires at least one change order be issued. The change order is administrative only, and issued for the total of the construction authorization, less the value of the bid items, less \$15,000; for example: change order amount=total allotment-items-\$15,000. Establishing the change order for this amount provides protections to prevent change order billings from exceeding the available funds.

5-103B (3) Completing Form CEM-6003, “Progress Pay—Estimate Project Initiation or Update”

The purpose of Form CEM-6003 is to add new information, or to change information, in the computer file. The computer program will accept changes only for contracts in your own district.

Except for the “Project Key,” complete only the data fields that you wish to update. The computer program will ignore blank fields and will place the data from the completed fields in the file whether or not such information is already on file. Fields left blank on the input form do not change what is in the file.

Make sure the data you enter on the form conforms to these rules, listed by data field as follows:

5-103B (3a) Project Key

Enter the letter “U” under “FB,” and in the remaining spaces, enter the district and contract number.

5-103B (3b) Card Type C05; each field is independent and can be updated separately

For the following data fields under card type C05, list the following:

- Resident engineer’s phone number.
- Responsible unit: Though the current financial system, E-FIS, now uses a 4-digit source unit value, enter the previous financial system’s TRAMS, 3-digit source

unit value. The responsible unit may range from 501 to 545. Warning: Until this number is in the computer file, progress pay estimates cannot be processed.

- Date work started: Enter the date the contractor began work on the job site. If the contractor has not begun, leave this field blank and submit an update when work begins.
- Estimated date for completion: Enter your best estimate, not the calculated completion date. When progress estimate requests are submitted, this date is updated.
- Password: Use of this feature is optional. Enter any combination of six characters. The characters may be alphabetic, numeric, or include any of the following special characters: *, /, =, (,), +, -, @, #, %, &. Once established, this password is required when you file, among other things, contract item payments, using Form CEM-6004, "Contract Transactions Input." The password will restrict access to the computer files.
- Suspension or reactivation: If a contract is suspended, enter the date of suspension and "S" in the "SR" column. When the suspended contract is reactivated, enter the date of reactivation and "R" in the "SR" column. You only have 30 calendar days from the suspension or reactivation date to enter this information into the computer.
- First Chargeable Working Day: Enter the date that contract time begins, usually 15 calendar days after the approval date. This is the date used to calculate the number of working days that determine satisfactory progress and the percent of time elapsed.

5-103B (3c) Card Type C06 to C08

Resident engineer's mailing address: On the first line, enter the resident engineer's last name first, followed by a comma. Then enter a space and the first name, followed by a space and middle initial; for example, SMITH, John C. On the second and third lines, enter the mailing address of the construction field office. Warning: The computer program treats all three lines as a single "data field." If you need to change this field, you must reenter all three lines.

5-103B (3d) Card Type C09 to C14

Only the headquarters Division of Construction progress pay coordinator can change the address in CAS.

To change the contractor's local address, enter the contractor's name on line C09, and as necessary, continue the name on lines C10 through C12. Leave unused lines blank.

Enter the contractor's local address on lines C13 and C14. Also enter the contractor's local phone number on line C14.

Warning: You must enter the entire name and address each time you wish to update any or all of these lines. You cannot update a single line.

5-103B (3e) Card Type C15

For the following data fields under card type C15, do the following:

- Structure representative's name: If the contract requires structure work, enter the structure representative's name even if it is the same name as the resident engineer's. Enter only the last name and first initial; for example, SMITH, J.
- Structure responsible unit: Though the current financial system, E-FIS, now uses a 4-digit source unit value, enter the previous financial system's TRAMS 3-digit source unit value. The unit may range from 550 to 599.
- Original authorized amount for structure work: At the contract's start, the resident engineer and the structure representative must determine the initial value of the required structure work. This value should include any portion of the contract item for mobilization that will be claimed as structure work. Warning: If this amount is not on file, Structure Construction cannot obtain any reports for this contract.
- Structure mobilization percentage: Enter, to the nearest whole percent, the portion of the contract item for mobilization that will be claimed as structure work.
- Structure completion: Enter a "C" to indicate the completion of structure work.

5-103B (4) Processing

CAS analyzes the changes made to the computer file and does the following:

- CAS notes whether the district is updating the "Responsible Unit" field for the first time. If so, CAS prints a dummy Project Record—Estimate form and a Contract Contents Report.
- If this update is not the first update, CAS prints only the first page of the Contract Contents Report. CAS prints the dummy Project Record—Estimate form only if the contractor's name and address field has been changed.
- CAS also prints a listing of update requests, which is a summary report of all fields that have been updated in this run.

5-103C Contract Transactions

The majority of all data submitted to CAS will be contract transactions from the resident engineer on Form CEM-6004, "Contract Transactions Input." Contract transactions are divided into the following three categories:

- Contract item transactions: These consist of five types of transactions that refer to contract items.
- Miscellaneous transactions: These consist of four types of transactions to handle general project needs.
- Change order transactions: These consist of three types of transactions that refer to change orders.

The Contract Transaction Processing Module processes 12 transaction types. Together with the services that the change order and Daily Extra Work Report Processing Modules perform, these modules are sufficient to generate contract records that provide control of progress payments and track the financial status of the contract.

5-103C (1) Transaction Types

The following describes, by category, the 12 possible transaction types:

5-103C (1a) Contract Item Transactions

CAS provides five ways to refer to a contract item in Form CEM-6004, "Contract Transactions Input." An additional way is by including the item as part of a change order. This will cause the authorized quantity to be adjusted automatically. Thus, you do not have to account for status changes because of change orders. You can reference contract items through the following contract item transactions:

- Contract item payment: Make item payments by posting line entries to Form CEM-6004 in any order. Indicate bridge items by entering "B" in the proper column. If you use the report titled Bridge Quantities by Structure, you will also need to enter the structure number in accordance with instructions in Section 6, "Estimates," of the *Bridge Construction Records and Procedures* manual, Vol. 1. Refer to Example 5-1.2, "Contract Transaction Input," Line 01, of this manual.
- Contract item quantity balance: You may adjust the authorized quantity, if necessary, by submitting quantity balances as line entries on Form CEM-6004, "Contract Transactions Input." You might need to make this type of transaction for various reasons. For example, a need might exist because of an incorrect engineer's estimate for a contract item that would have a major effect on the contingency balance. This transaction type adjusts the authorized final cost for your project, as shown in the later discussion of progress pay estimates. Refer to Example 5-1.2, Line 02 of this manual.
- Contract item anticipated change: This transaction gives the engineer a method to allocate project funds to a specific contract item based on knowledge of anticipated additional or decreased work. Such transactions affect the estimated final quantity for the item and the estimated final cost for the project. The effect of these transactions is cumulative. If additional work is authorized by change order, a reversing entry is necessary. Refer to Example 5-1.2, Line 03 of this manual.
- Contract item final balance: When work is completed on a contract item, you should enter this fact into the system. This entry will mark the item in the computer file as "Complete." On all subsequent progress pay estimates, the authorized quantity and the estimated final quantity will default to the amount paid to date, thus automatically balancing out the item. Additional item payments may be made, and the system will continue to balance the contract items. Refer to Example 5-1.2, Lines 04 and 05 of this manual.

- Contract item final balance (“Reopen”): This transaction allows you to reverse the status of the contract item from “Complete” to “Active.” For example, you would use “Reopen” to change an incorrect entry that showed the item was complete. Refer to Example 5-1.2, Line 06 of this manual.

5-103C (1b) Miscellaneous Transactions

The four transaction types in the following list comprise “miscellaneous transactions,” the second category of contract transactions:

- Anticipated change: Use this transaction to record anticipated additional or decreased work when it is not possible or desirable to tie the anticipated change to a specific contract item or change order. These transactions are not cumulative and will affect the project’s estimated final cost only on the next progress pay estimate to be generated. Refer to Example 5-1.2, Line 07 of this manual.

These transactions are placed in the computer file, and their sum will appear on the next progress pay estimate that generates payment. If the next estimate is a supplemental progress pay estimate, only enter materials on hand payment requests if the materials on hand payment request was mistakenly omitted from the previously run progress pay estimate.

- For more information about materials on hand, refer to Section 3-9, “Payment,” and Example 5-1.2, Line 08 of this manual.
- Department-furnished materials allotment transfer: Use this transaction to increase or decrease the value of the Department-furnished materials allotment for your contract. The construction allotment will automatically adjust. To increase the Department-furnished materials allotment, enter a positive number. This type of entry will decrease the contingency balance. Refer to Example 5-1.2, Line 09 of this manual.
- Total allotment changes: Use this transaction to enter into the system any supplemental allotment that increases or decreases your contract’s total allotment. The total allotment in the computer file will adjust automatically as will the construction allotment. The construction allotment is defined as the total allotment minus the Department-furnished materials allotment. Refer to Example 5-1.2, Line 10 of this manual.

5-103C (1c) Change Order Transactions

The following three transaction types comprise “change order transactions,” the final category of contract transactions:

- Change order anticipated change: This transaction has the same effect as does the contract item anticipated change except that a change order is being changed. Refer to Example 5-1.2, Line 11 of this manual.
- Change order final balance: This transaction has the same effect as a contract item balance. When work on a change order is finished, mark it “Complete” by entering this transaction. As with contract items, additional change order bills

may be paid, and the system will continue to balance the change order. Refer to Example 5-1.2, Line 12 of this manual.

- Change order final balance (“Reopen”): This transaction allows you to reverse the status of the change order from “Complete” to “Active.” Refer to Example 5-1.2, Line 13 of this manual.

5-103C (2) Completing Form CEM-6004, “Contract Transactions Input”

The resident engineer will use Form CEM-6004 more often than any other form in CAS. This section contains a completed sample of the form. Refer to Example 5-1.2, “Contract Transaction Input.”

Because of the high volume of transactions, make your entries on Form CEM-6004 as soon as the information becomes available. Partially filled pages are acceptable.

The sample form in this section shows some transactions. Note that leading zeros are not required in the numeric fields and that the plus sign is not required in the plus or minus columns. The following instructions are for the fields common to all transactions:

- Enter the district, contract number, password if used, and page number. When assigning a page number, be careful because duplicate numbers will cause all transactions on the page to be rejected. You must complete these fields.
- Enter the posting date.
- Enter the source document description. If the transaction type refers to a project source document, for example, a calculation sheet or a scale sheet, enter into the form’s description column an adequate description of the source document. The source document must cross reference to Form CEM-6004. Post the page number, line number, and posting date from Form CEM-6004 to the source document. Refer to Example 5-1.3, “Quantity Calculation,” for a typical source document.
- Note: The last six characters of the source document description can be the structure number if this item concerns structure work. Refer to Example 5-1.2, Line 01 of this manual.
- Mark the structure field with the character “B” if this transaction concerns “structure work.” Otherwise, leave the space blank. If you use report “Bridge Quantities by Structure,” you will also need to enter the structure number in accordance with the instructions in Section 6, “Estimates,” of the *Bridge Construction Records and Procedures* manual, Vol. 1.

The form’s remaining fields are divided into two sections, “Contract Item Entries,” and “All Other Entries.” If you make any entry in one or more fields of one of the sections, all fields in the other section must be left blank. A single line entry cannot serve double duty.

5-103C (2a) Contract Item Entries

Each type of contract item transaction has its own format on Form CEM-6004. The following are the rules for making contract item entries:

- Quantity balance transactions:
 - Lump sum items cannot be quantity balanced. If you attempt to quantity balance them, the transaction will be rejected.
 - If the quantity balance is greater than the bid quantity, a warning message is issued.
 - If the value of the quantity balance exceeds \$100,000, a warning message is issued.
 - The new authorized quantity is calculated. If it is negative, the transaction will be rejected.
 - If the new authorized quantity is less than the total payment for the next estimate, a warning message is issued. Take appropriate action on this warning, such as estimating the final quantity and entering the increase, covering the increase by change order, or requesting the computer to final balance the item. Such action is necessary to keep the project's status of funds current.
- For item final balance and item final balance "Reopen," the item status is set to "Complete," or "Active," respectively. The system does not check to see if the item is a lump sum item or a final pay item.
- Item anticipated quantity change:
 - If the anticipated quantity change is greater than the bid quantity, a warning message is issued.
 - If the value of the anticipated quantity change exceeds \$100,000, a warning message is issued.
 - A new estimated final quantity is calculated. If this estimated final quantity is negative, a warning message is issued.
 - If the new estimated final quantity is less than the total payment for the next estimate, a warning message is issued.
- Item payment:
 - Any transactions for the item "Mobilization" are rejected.
 - Any transactions for a void item will be rejected.
 - If the payment quantity is greater than the bid quantity, a warning message is issued.
 - If the value of the payment quantity exceeds \$100,000, a warning message is issued.

- The new total payment for the next estimate is calculated. If the total is negative, the transaction is rejected. Negative transactions under “This Estimate” will be accepted.
- If the contract item is a lump sum item and the total payment for the next estimate would exceed 100 percent, the transaction is rejected.
- If the contract item is not a lump sum item, the new total payment for the next estimate is compared to 125 percent of the bid quantity and the authorized quantity. Warning messages are issued if the total payment is more than one or both of these.

If the system issues any warning or rejection messages while it processes transactions for a contract item, the complete status of the item will be printed on the Contract Transactions Input Edit report before the system begins processing the next contract item. Use this printout to determine the reason the system issued the message.

- Percentages for lump sum quantity payments must be expressed as decimals. Only three decimal places are available. If 5 percent is to be paid, it must be entered as 0.050; 5.00 is 500 percent.

5-103C (2b) Miscellaneous Transactions

The following are the rules for noting miscellaneous transactions:

- Anticipated changes:
 - If the amount anticipated exceeds \$100,000, a warning message is issued.
 - If the amount anticipated exceeds 10 percent of the construction allotment, a warning message is issued.
- Materials on hand payments:
 - If the amount exceeds \$100,000, a warning message is issued.
 - If the amount is negative, a warning message is issued. The system assumes that this is a correcting entry to a previous transaction accepted by the system and not yet processed for payment.
 - A total is calculated for payment for the next estimate. This is the sum of all transactions since the last estimate. If the total is negative, a warning message is issued.
- Department-furnished materials allotment transfer:
 - If the amount of the transfer exceeds \$100,000, a warning message is issued.
 - A new total is calculated for the Department-furnished materials allotment. If it is negative, the transaction is rejected.
- Total allotment changes:
 - If the amount exceeds \$100,000, a warning message is issued.

- If the amount exceeds 10 percent of the total allotment, a warning message is issued.
- If the amount of the change is negative, a warning message is issued.
- A new total allotment is calculated. If the amount is negative, the transaction is rejected.
- If the new total allotment is less than the total paid to date on the last estimate, a warning message is issued.

5-103C (2c) Change Order Transactions

The following are the rules for change order transactions:

- For the change order anticipated change, the new estimated final cost is computed for the change order and reported. The system does not do any checking.
- Change order final balance and final balance “Reopen”:
 - The change order status is set to “Complete,” or “Active,” respectively. The system does not do any checking.
 - For a change order final balance “Reopen,” the word “Reopen” must be left-justified.

5-103C (2d) General

The Contract Transactions Processing Module will sort your transactions into order, will edit each transaction for reasonableness and conformance to this manual, and will either accept or reject each transaction. From this processing, the system will issue a report titled “Contract Transactions Input Edit.” This report will list the disposition of each line entry that you submitted. A comprehensive set of warning messages exists. Do not ignore warning messages on the report.

Do not use the same page and line numbers again.

You will find a summary on the last page of the Contract Transactions Input Edit report. The summary lists each Form CEM-6004, “Contract Transactions Input,” page that was processed and the numbers of transactions on that page that were accepted, for which warnings were issued, or that were rejected. Any missing line numbers on the page or breaks in the sequence of line numbers will be printed. Use this list to make sure that all the transactions were entered into the system.

Examine the remainder of the report. You must respond to rejected entries and possibly to warnings.

5-103C (2e) Audit Trail

In any accounting procedure, it is necessary to link transactions to the specific source documents that generate the transactions. This linking is called an audit trail. Change orders and daily extra work reports carry unique identifying numbers that CAS uses in its processing. Here, a good audit trail is automatic. However, contract

transactions are different, because there is no automatic reference to a unique source document.

CAS provides methods of cross-reference. You are responsible for an adequate audit trail. Note that Form CEM-6004 is an intermediate document in this respect.

Example 5-1.2 Contract Transactions Input

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION CONTRACT TRANSACTIONS INPUT CEM-6004 (Rev. 10/1983) C1#7541-3515-0			1381U4 CONTRACT NO.			CASØAT			PAGE NO. 004		
07 DIST			1381U4 CONTRACT NO.			CASØAT			PAGE NO. 004		
DATE			SOURCE DOCUMENT DESCRIPTION			CONTRACT ITEM ENTRIES			ALL OTHER ENTRIES		
LINE NO.	MO.	DAY	NO.	QUANTITY (UNITS)	CCO NO.	AMOUNT(\$)	TYPE	ENT BY	BY	VERIFIED	VERIFIED
01	05	19	48-14-17	1,273 000				Time	URW		
02	05	19	MAIL BOX ON ELM ST	15 000	Q			Time	URW		
03	05	19	ANT. ELIM. AC ON FL	1,500 000	A			Time	URW		
04	05	19	BAL. COMPL. ITEM 6		F			Time	URW		
05	05	19	48-8-2	152 400				Time	URW		
06	05	19	RESTORE STATUS	REOPEN	F			Time	URW		
07	05	19	REV GRADE FR2 LINE			15,000 00	ANT	Time	URW		
08	05	19	51-4-2			2,174 37	MHS	Time	URW		
09	05	19	52-4-1			2,000 00	SFM	Time	URW		
10	05	19	11-3-1			315,000 00	TAC	Time	URW		
11	05	19	DELET DRAINAGE			10,000 00	ACC	Time	URW		
12	05	19	BAL. COMPL. CCO 18				BAL	Time	URW		
13	05	19	RESTORE STATUS				REOPEN	Time	URW		
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											

Refer to Section 5-103C(1) for a description of transaction types.

IN CASE OF QUESTION CONTACT: NAME _____ PHONE _____
 For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880
 ADA Notice or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 958 14.

Example 5-1.3. Quantity Calculation

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
QUANTITY CALCULATIONS
 CEM-4801 (REV 11/1992) CT# 7541-3520-0

JOB STAMP 07-1381U4 07-LA-210-47.5/57.3 Fed. No.: None	ITEM	FILE NO.
	8 Temp. Railing (Type K)	48-8-2
	LOCATION	SEGREGATION YES <input type="checkbox"/>
	Ramp 3	NO <input type="checkbox"/>
CALC. BY	I.M. Engineer	DATE
CHK. BY	U.R. Wright	DATE

Field Measurement:	Estimated Quantity: 400			
Field Counted: ✓	Unit of Measure: linear feet			
Final Pay Item:	Unit Price: \$25.00			
	75% = 300			
	125% = 500			
Remarks or Other Calculations:				
<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>PAY THIS ESTIMATE: 200 ✓</td> </tr> <tr> <td>PREVIOUS PAID: 100 ✓</td> </tr> <tr> <td>TOTAL TO DATE: 300 ✓</td> </tr> </table>		PAY THIS ESTIMATE: 200 ✓	PREVIOUS PAID: 100 ✓	TOTAL TO DATE: 300 ✓
PAY THIS ESTIMATE: 200 ✓				
PREVIOUS PAID: 100 ✓				
TOTAL TO DATE: 300 ✓				
POSTED BY	DATE	POSTED TO		
Office Engineer	08/08/2008	CEM-6004, page 4, line 5		

5-103C (3) Computer Processing

The contract item totals in the following list are kept for contract work and for structure work so that the totals can be reported separately when appropriate. Records of the financial status of the contract items are maintained as follows:

- Bid quantity: This quantity cannot be changed.
- Authorized quantity: This item is the total of the bid quantity and the algebraic sum of the quantity changes as a result of change orders that have been filed.
- Authorized quantity: This item is the total of the authorized quantity and the algebraic sum of the quantity balances that the engineer entered.
- Anticipated final quantity: This item is the total of the authorized quantity and the algebraic sum of the anticipated quantity changes that the engineer entered.
- Item status flag: This flag is a file mark that indicates whether a contract item is “Active,” “Deleted,” or “Completed.”

5-103D Change Orders

CAS maintains separate records for each authorized change order on a project. As each change order is authorized, it must be entered into CAS through the use of Form CEM-4901, “Change Order Input.”

The method of entering each change order into the system may vary from district to district, but can be done as follows:

- The resident engineer writes a change order and completes Form CEM-4901, “Change Order Input.” For approval procedures, refer to Section 5-3, “Change Orders,” of this manual. The approval date must be entered on Form CEM-4901, and the Form CEM-4901 data is then entered into CAS.
- The result of entering the form data for each change order will consist of a change order report and a disposition report.
- The resident engineer should review the change order report and correct any errors. CAS automatically makes the following changes to the contract records:
 - The authorized final cost, the estimated final cost, the authorized contingency balance, and the estimated final contingency balance are adjusted to new values.
 - The totals for changes in extra work, adjustment of compensation, and contract items are adjusted to new values.
 - Each affected contract item will have the authorized quantity adjusted to reflect the change.
- Immediately after Form CEM-4901 has been processed, CAS will accept change order bills and anticipated changes that refer to the change order.

- When CAS processes a supplemental change order, the daily extra work reports that are in the holding file because of insufficient funds in the original change order will be made available for payment.

5-103D (1) Completing Form CEM-4901, "Change Order Input"

Use Form CEM-4901 to perform the following functions:

- File a new change order in the computer file.
- Update an existing change order in the computer file.
- Replace a filed change order with a different change order.
- Delete a change order from the computer file.

Completing the form depends on which of the functions is desired.

5-103D (1a) File

Enter the contract and change order numbers at the top of the form. The original change order is supplement "zero"; enter the zero on the form. Ignore the function and override boxes at the top of the form.

The remainder of the form is divided into five sections labeled "Card Type 1," "Card Type 2," "Card Type 3," "Card Type 4," and "Card Type 5." Complete only those sections that are applicable.

Card Type 1: This section is required. Complete each entry in the section. If the entry for the field "Net Money Change This CCO" is zero, enter \$0.00. The field "Time Extension Days" should include the number of working days added or deleted, zero, or be coded "DEF" instead of a number if the change order was written with a deferred time adjustment clause. Enter a category code on every change order. Left-justify this code.

Card Type 2: If extra work or adjustment of compensation is not part of your change order, leave these fields blank. Otherwise, define the payment method by making three entries for each change:

1. Make the first entry by checking either the "EW" or "AC" box to indicate extra work or adjustment of compensation.
2. Make the second entry by choosing one of the "FA," "LS," or "UP" boxes to indicate whether payments will be made by force account, lump sum, or unit price.
3. Make the third entry by entering the dollar amount of the change (increase or decrease).

If multiple items of work in the change order are using the same pay method, they must be totaled. Also, you can enter each pay method only once per change order. If there is more than one type of extra work or adjustment of compensation on the change order, continue making successive line entries.

Card Type 3: If you have no changes for contract item prices, do not complete this section of the form. Otherwise, furnish the item number and increase or decrease the quantity for each changed item.

Card Type 4: If all or part of the work to be done under the change order is structure work, enter the net dollar amount involved. This amount will contribute to the change order changes line of the structure totals shown on the next estimate.

If this section of the form does not apply or the amount is zero, leave the section blank.

Card Type 5: This section is required.

For federal participation, enter the FHWA funding participation determination on every change order. If participation is in part, indicate the breakdown for participation-in-part funding.

For federal segregation, if more than one funding source exists, show the percentage allotted to each federal funding source.

5-103D (1b) Update

Use this function in the following way to replace any incorrect information in Card Type 1 or Card Type 4:

- Enter the contract and change order numbers.
- Place the letter “U” in the function box at the top right of the form.
- Enter the correct information in the appropriate fields. All information in Card Type 1 is always required.
- Leave all other fields on the form blank.
- The module for processing change orders will identify the fields that you have completed and will change this information in the computer file.

5-103D (1c) Replace

If a change order has been stored with incorrect information that cannot be corrected by the update function, use the replace function in the following way:

- Complete the entire form exactly as you would for the file function, using correct information.
- Place “R” in the function box at the top right of the form.

The module for processing change orders will replace the data stored in the computer file with the new change order.

If payments have already been recorded against a payment method that you are trying to eliminate, it is not possible to immediately replace an old change order with a new one. The same holds true if the payment to date exceeds the authorized amount. In these cases, the system requires that you do the following:

- Enter corrections for the change order bills that reverse payments to date to zero for the particular method of payment to be eliminated. For payments exceeding

the authorized amount, enter corrections for the change order bills to reduce payments below the authorized amount.

- Submit the replace request.
- After the change order has been replaced, reenter the change order bills that were reversed. When possible, use the update function instead of the replace function.

5-103D (1d) Delete

You can eliminate a change order from the computer file as follows:

- Enter the contract and change order numbers.
- Place the letter “D” in the function box at the top right of the form.

As with the replace function, a change order cannot be deleted until all payments have been reduced to zero through correcting entries on the daily extra work reports.

5-103D (2) Edits

The following lists some of the edits that a change order must pass through before the system will accept it:

- The change order number and the change order supplement number must be filled in or the change order will be rejected.
- The change order description cannot be blank, or the change order will be rejected.
- The net change amount cannot exceed the construction allotment. If the net change amount does exceed the construction allotment, the system will issue a warning message but will still accept the change order.
- The approval date must be after the bid opening date and be before or the same as “today’s” date; otherwise, the change order will be rejected.
- If the time extension days exceed 10 percent of the working days in the contract, the system issues a warning message but will accept the change order.
- If any payment method appears more than once on the input cards, the order will be rejected.
- If you enter any contract item change for a void item, the system will reject the change order.
- Lump sum items may appear on change orders only as a deletion of that item. Any increase or decrease in a lump sum item will be rejected.
- You can enter a contract item on a change order as an increase and as a decrease. If the item appears a third time, the system will reject the change order.
- If the contract item “mobilization” appears on a change order, the change order will be rejected.

- If the quantity change entry for a contract item exceeds the bid quantity, a warning message will be issued.
- The net dollar amount for the structure work on the change order must be greater than the sum of the negative changes and less than the sum of the positive changes, or the change order will be rejected.
- The net dollar change for the change order must equal the sum of the dollar amount in Card Type 2 and the extended dollar amounts for the quantities in Card Type 3, or the change order will be rejected.
- If the change order is already on file, the system will reject a duplicate entry. Additionally, if this change order's number exceeds by five the largest change order number on file, or if the supplement's number is more than two above the latest supplement on file for this change order, the system will reject the change order. However, if you checked the override field on the input field, the system will accept such responses.
- If the contract is completed, a warning is issued.

If you request the replace or delete function, more extensive processing is done. The system checks to see if it can maintain the payment to date under a payment method.

If the system cannot maintain the payment to date in this way, it rejects the request to replace or delete. A rejection notice is generated along with an explanation of what must be done to resolve the situation.

Following is an example:

- A change order is entered for extra work at force account and accepted by the system.
- Subsequently, change order bill payments are recorded against the change order.
- A request is entered to delete the change order from the computer file. In this case, the system will reject the request to delete because the payment method would be eliminated. There are no other supplements to this change order. The system requires that entries to correct change order bills be to reverse payments to date to zero. In such a case, the system would accept a delete request. In the more complicated cases where supplements to a change order exist, the system makes similar demands.

At this point, the processing of the change order is complete. However, when a supplemental change order is processed, the daily extra work reports in the holding file, because of insufficient funds in the original change order, will be made available for payment. The system produces a report, called a "DEWR Release From the Holding File." This report shows the action the system took.

5-103E Change Order Billing

Change order billing is input, revised, corrected, and submitted for payment using the internet extra work billing system (iEWB) at:

<https://dot.ca.gov/programs/construction/iewb>

Computer-based training for learning how to use the iEWB system is available at:

<https://dot.ca.gov/programs/construction/iewb>

The iEWB system allows authorized users to correct extra work bills that have been previously processed and paid. Change order bills or corrected approved extra work bills that need to be paid but have insufficient funds will not be rejected because of insufficient funds, subject to the limitations in Section 3-906C, “Extra Work,” of this manual. Instead, the system will place these change order bills in a pending status to await the resident engineer’s further action. If there are insufficient funds to pay the extra work bill, usually, the resident engineer must write a supplemental change order to provide additional funds; the supplemental change order will make the appropriate change order bills available for payment. Once additional funds are added by the supplemental change order in CAS, the iEWB system will automatically process and pay the extra work bills that have been previously approved and are in the pending funds status.

All standard contracts are required to use the iEWB system to process payments for change orders.

For contracts that are not in CAS and therefore are not using the iEWB system, the form CEM-4902, “Extra Work Bill (Short Form),” can be used. This form is only used on contracts that are not in CAS.

Use Form CEM-4902 to enter basic information related to extra work performed under a change order. The following describes procedures for obtaining the information from the contractor, entering the information into the computer, and producing the daily extra work reports.

5-103E (1) Preparing Form CEM-4902, “Extra Work Bill (Short Form)”

The contractor may enter change order bills on Form CEM-4902, “Extra Work Bill (Short Form).” Or, if more entries are required for equipment, labor, or material, the contractor must use the four-part forms CEM-4902A, “Extra Work Bill–Title Page,” CEM-4902B, “Extra Work Bill–Labor Charges,” CEM-4902C, “Extra Work Bill–Equipment Charges,” and CEM-4902D, “Extra Work Bill–Material Charges.”

The contractor initiates forms containing force account payment and submits them to the resident engineer. The resident engineer initiates forms containing payment at agreed prices. The backs of the forms contain the basic instructions for completing the forms. The following information supplements the instructions on the forms:

5-103E (1a) Basic Information (Title Page)

Enter the following for the basic information:

- The change order number: Right-justify this three-digit number; for instance, change order 1 is 001, change order 10 is 010.
- Report number: The contractor should leave the report number blank. Duplicate numbers will be rejected unless they are corrections to previous bills.
- Date performed: A separate change order bill must exist for each day on which force account work is performed except for work done by a specialist. Enter the date the work was performed in these spaces. For change order bills covering invoices only, enter the date on which the material was used. If this entry is not practical, enter the current date. You must enter a date in this field. You may enter the acronym “VAR” in the date performed field if the pay method is lump-sum, unit-price, or if equipment and labor are not present on the bill.
- Date of report: Enter the date on which the report is prepared.
- Payment method: Make sure the method selected matches one of the methods authorized by the change order.
- Bridge: Place the letter “T” in this box if toll bridge work is involved and you want to apply a 10 percent markup to equipment and material and a 25 percent markup to labor.
- Flagging: You must include on the change order bill the total hours spent on flagging.
- Labor surcharge: The contractor should enter this surcharge as a whole number; for instance, “15 percent” is entered as “15.” The contractor should obtain the applicable percentage from the effective *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book. This surcharge is for regular hours. The system will apply the overtime surcharge based on the regular hour surcharge.
- Work performed by: This field should contain the name of the contractor, subcontractor or other organization that performed the work. If the change order bill is for an invoice only, enter the name of the organization to which the invoice was addressed. Submit a separate daily change order bill for each organization’s work.

5-103E (1b) Equipment

Do the following for equipment:

- Equipment identification number: Entering this number is required. It can be any number that the contractor assigned to the equipment for specific identification.
- Equipment description: Enter the description, which consists of four items: the “Class,” “Make,” “Code,” and “Attach,” for attachments. The equipment description must come from the applicable *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book. Make a copy of this publication available to the contractor. A listing of miscellaneous equipment, for equipment that is not shown in the *Labor Surcharge and Equipment Rental Rates*

(Cost of Equipment Ownership) book, is available from the Division of Construction's website.

- For equipment that is neither in *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book nor available from the website's miscellaneous listing, the contractor must request a rate from the resident engineer. The resident engineer will obtain an authorized rate from the Division of Construction's rental rate engineer.
- Equipment for which a change order has established the rental rate will not have an equipment description and must be included as a unit price payment on the material charges portion of Form CEM-4902 (Short Form), lines 24–25, or Form CEM-4902D, "Extra Work Bill–Material Charges," lines 24-33, of the daily extra work report.
- The following explains the procedures for "Class," "Make," "Code," and "Attach," within equipment description:
 - Class: This portion of the equipment description will be found in the *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book under the heading for a particular class. For instance, after "Hydraulic Cranes and Excavators, Crawler Mounted," you will find the class "HCECL."
 - Make: For the equipment listed by "Class," you will find the "Make" portion of the equipment description in the left-hand column. For instance, after "Bantam," you will find the make "[BANT]."
 - Code: For the equipment listed by "Class" and "Make," you will find the "Code" portion of the equipment description in the "Code" column. For instance, after "Model C-266," you will find the code "0680."
 - Attachments: You will find this portion of the equipment description in the front of the *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book. The rate for the equipment under "Class," "Make," and "Code" above includes all attachments and accessories. Therefore, leave this column blank.

Enter all equipment descriptions beginning at the left of each field. Include all letters, numbers, dashes, or other symbols as they are shown in the *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book.

- Regular hours for which payment is to be made: Enter the regular hours for which payment is to be made. Regular hours may not exceed 8 unless you are entering a daily rate item. If the date the work was performed is various, you may enter up to 99 in the regular hours field. Various is used for equipment at day rates.
- Overtime hours: Enter the overtime hours worked. Overtime hours may not exceed 16.

5-103E (1c) Other Expenses Subject to Labor Markup

This portion of the form is for travel expenses that cannot be entered as “Subsistence” under “Labor.”

If the units and rate are already entered, the computer will calculate the amount. Otherwise, enter the amount, and this figure will be used.

Note: If you use the “Unit” and “Rate” fields, leave the “Amount” field blank. If you enter an amount in the “Amount” field, don’t make an entry in the “Unit” and “Rate” fields.

5-103E (1d) Material or Work Done by Specialists, Lump Sum, or Unit Price Payments

The following explains the procedures for completing the Form CEM-4902, “Extra Work Bill (Short Form),” material section:

- Material: Note that the material entry will not be processed unless there is a value in both the “Units” and the “Unit Cost or Net Pay” fields. Enter the following for material:
 - Invoice date: Preferably, enter the date of the invoice to help in checking for duplicate billing. However, if entering the invoice date is not practical, enter the date the material was used.
 - Invoice description: Enter a brief description of material.
 - Units: Normally, enter the unit one (1.00) for materials used.
 - Unit cost or net pay: In this column, enter the amount for which payment is due. Normally, this amount is the cost of the material plus tax, if applicable, less any discount offered.
- Work Done by Specialists: Enter this item in the same manner as described in the preceding “Material” section.
- Lump Sum: Follow these procedures for this entry:
 1. Vendor name and invoice number: You do not need to make any entries in the vendor column or the invoice number column.
 2. Date: Enter the date the work was performed. When entering this date is not practical, enter the current date.
 3. Invoice description: Enter “per Change Order No. _____.”
 4. Units: Enter the units to be paid as a percentage of the lump sum amount, expressed in decimals. For instance, express 75 percent as 0.75. This figure must never exceed a total of 1.000.
 5. Unit cost or net pay: Enter the lump sum amount from the change order.
- Unit price payments: Enter this item in the same manner as described under “Lump Sum” above.
- Units: enter the number of units to be paid.

- Unit cost or net pay: enter the unit cost from the change order.

5-103E (1e) Signature of Prime Contractor's Representative

For all force account payments, the contractor or contractor's authorized representative must sign the change order bill. For agreed price payments, the signature is not required.

5-103E (2) Processing Form CEM-4902

The resident engineer receives Form CEM-4902, "Extra Work Bill (Short Form)," from the contractor, reviews the form, and if it is satisfactory, signs the change order bill and authorizes it for entry into CAS. When reviewing the submitted change order bill, the resident engineer must be guided by the policy contained in Section 3-9, "Payment," of this manual. The following explains how the system will process Form CEM-4902:

- Request that CAS print a copy of the change order bill after it has been entered into the system before it will be paid.
- Computer programs will perform the following processes:
 - Edit all information for acceptability. For example, numeric data must be in numeric form, or the program will issue a warning.
 - Select information from the equipment database; for example, rates, descriptions, and attachments.
 - Validate the contract number, change order number, report number, type of work or payment method, dates, corrections, labor surcharge, and equipment description.
 - Audit right-of-way delay and the hours equipment and labor are used for work.
 - Compute extensions, markups, and summaries.
 - Verify that the authorized amount, for instance, 100 percent or \$15,000, is not exceeded.
 - File a validated change order bill for payment at the estimate time.
 - Produce a daily extra work report. This report will contain all the information as entered on the change order bill plus equipment descriptions, extensions, markups, total payment, and contract information.
 - Produce an edit report. This report will contain processing results. These results are tabulated by change order within a contract. If the system rejects an entry, the rejection messages will be included on the daily extra work report. If the system accepts the change order bill, all warning messages will be contained on the edit report.
- After the reports have been printed and the district construction office has received them, the district will forward copies to the resident engineer. Daily extra

work reports are printed in two parts, one for the contractor and one for the resident engineer.

5-103E (3) Corrections to Change Order Bills

You can make corrections to a change order bill after it has been entered into the system, but there is a limit of four corrections per change order bill. Refer to the Reverse/Correct section of the *Internet Extra Work Billing System (iEWB) User Guide* at:

<https://dot.ca.gov/-/media/dot-media/programs/construction/documents/iewb/icas-user-guide-ewb-07-31-2019.pdf>

5-103F Generating Estimates

CAS produces five types of estimates on demand:

- Monthly progress estimate
- Progress estimate after acceptance
- Supplemental progress estimate
- Semifinal estimate
- Final estimate

The resident engineer will regularly request the monthly progress and the progress after acceptance estimates while the remaining three types of estimates usually will be requested in cooperation with, or by, the district Construction office.

Supplemental progress estimates may only be run between the completion of the monthly progress estimate run and the 15th of the following month.

Producing an estimate is completely automatic, based on data previously stored in the computer.

In addition, CAS will produce two other types of estimates that do not generate payments. These estimates are simply statements of the current status of the computer files. The following are the two types:

- Status purpose only estimate
- Proposed final estimate

5-103F (1) Procedure

Before requesting the first monthly progress estimate, enter the date work started and the responsible unit on Form CEM-6003, "Progress Pay—Estimate Project Initiation or Update." The Division of Construction progress pay coordinator enters the approval date. If the approval date is not in the computer file, the system will reject the estimate request.

The procedure for processing an estimate includes the following steps:

- Preparing Form CEM-6101, "Project Record—Estimate Request," and verifying the estimate. Transmit these to the district office.

- Computer processing of your estimate and printing the reports.
- Verifying the estimate results at the district Construction office.
- Returning the estimate reports to the resident engineer.

The schedule for completing the pay process and making payment to the contractor is rigid. This rigid schedule means all people involved must adhere to their individual schedules. District Construction offices will advise resident engineers of the schedules.

5-103F (1a) Preparing Form CEM-6101, “Project Record—Estimate Request”

To request an estimate, complete this form accurately in accordance with the following:

5-103F (1b) Estimate Parameters

For the estimate parameters, follow these instructions:

- Enter the contract number.
- Enter the estimate number. This number must be one greater than the last estimate that was successfully processed and paid.
- Enter the work period ending date in the estimate for the form’s “Work Performed Through” field. For a progress estimate or a supplemental progress estimate, enter the 20th day of the month. For all other types of estimates, use the date of completion.
- If this is a monthly progress estimate, place an “X” in the matching box on the form; otherwise, leave the box blank.
- If this is a progress estimate after acceptance, place an “X” in the matching box on the form; otherwise, leave the box blank.
- Enter the estimated date of completion. This date should be the resident engineer’s best estimate, not necessarily the computed date. If this estimate is not a progress estimate, enter the date of completion.
- Enter the values as of the “date work performed through” for chargeable working days, weather nonworking days, and authorized time extension days from a change order in the three matching fields of the form. As of February 16, 2012, “Other day” time extensions are no longer allowed, therefore do not increase this value to more than existed before this date. In most cases, this value should always be zero. The system will check the chargeable working days and weather nonworking days against the working days calendar and inform you of possible entry errors. However, it cannot check the two types of time extension days. These values affect the system’s computation of percent time elapsed.
- If you have a landscape contract that is in the plant establishment period, check one of the two boxes to indicate whether progress is satisfactory or unsatisfactory. These boxes are not for highway contracts that contain “Type 2”

plant establishment periods. If you are unsure of this status, contact the district Construction office after reading the special provisions.

- The system determines whether contract progress is satisfactory or unsatisfactory. Occasionally, a situation arises in which, even though progress is mathematically unsatisfactory, the resident engineer wishes to override the system and record satisfactory progress. To accomplish this override, place an “X” in the field, “Override Unsatisfactory Progress.” Also refer to the following item about projects with dual time limits.
- For some contracts, the standard manual formula does not apply for computing percent time elapsed. For such contracts, interpret the special provisions, and determine this percentage. Enter the percent in the box on the form; this will override the system’s calculation.
- If you have checked “Override Unsatisfactory Progress” or entered a number in percent time elapsed, enter a short explanation in the 25 spaces immediately below these fields on the form. Typical entries might be “change order days pending” or “Nonstandard time format.”
- If the estimate is a supplemental progress estimate, proposed final estimate, semifinal estimate, or final estimate, check the appropriate box. Note that on a supplemental progress estimate the date for “Estimate for Work Performed Through” and all of the working day information should be the same as the date for the last estimate.
- If this estimate is a recalculation of a previous successful estimate, check the recalculation box. Note that, if the most recent estimate processed was a status purpose only estimate, you are not rerunning an estimate this month; instead, you are trying to run the estimate that did not generate payment. Normally, the district office will enter requests to rerun an estimate.

5-103F (1c) Deductions

If you wish to take one or more deductions or to return one or more deductions from a previous estimate, enter them on Form CEM-6101, “Project Record—Estimate Request.” If you wish to rerun an estimate or to pay an estimate after a status only estimate, you still must enter the deductions again because any deduction stored in the computer file and carrying this estimate number will be erased automatically. You can enter five types of deductions on this form. Each deduction entered requires an alpha code to be placed in the form’s type field and an entry in the description field. Use a minus sign to take a deduction and a plus sign to return a previous deduction. The following lists the rules by type of description:

- Administrative deductions: Enter “ADM” in the type field. Both plus and minus deductions are allowed.
- Equal employment opportunity deductions: Enter “EEO” in the type field. Both plus and minus deductions are allowed, but plus deductions should be adjustments or reversals of deductions taken on previous estimates. If you wish to take an EEO deduction on this estimate, leave the amount field blank. The

system will compute the deduction amount for you. Only one “blank” EEO deduction, normally entered by the labor compliance officer, can appear on the form. Note: The system will not accept EEO deductions if the contract item payment for this estimate is zero. It may be necessary to enter the minimum amount of \$1,000.

- Labor compliance violation deductions: The labor compliance officer usually makes these entries on the form. The officer will enter “LCV” in the type field. The rules for LCV deductions are identical to those for EEO deductions. Note: “LCV” deductions will not be taken if the contract item payment for this estimate is zero. It may be necessary to enter the minimum amount of \$1,000.
- Liquidated damages deductions: Enter “LIQ” in the type field. Both plus and minus deductions are allowed. Plus deductions reverse earlier deductions. Only use this type of deduction when liquidated damages are being assessed. If during the course of the work, the contractor’s progress is unsatisfactory and has progressed to a point at which a reasonably accurate estimate of possible liquidated damages can be made, make a deduction instead of any retention for unsatisfactory progress using an ADM in the type field with the text “Antic.Liq.Damages.” Reverse the ADM when the actual liquidated damages are being assessed by using LIQ in the type field. Refer to Sections 3-807, “Liquidated Damages,” and 3-906G, “Deductions,” of this manual for more detailed guidance.
- Other outstanding documents deductions: Enter “OOD” in the type field. If you wish to take this deduction, leave the amount field blank. The system will compute the amount for you. Take this deduction only once per contract. The system will maintain the correct deduction on subsequent estimates by generating “OOD” in the type field with a description, “MAINTAIN OOD DEDUCT.” You can reverse the deduction at any time by entering a plus amount that exactly reverses the OOD deductions to date from the previous estimate. Negative OOD deduction amounts are never allowed on the input form.

After carefully preparing Form CEM-6101, “Project Record—Estimate Request,” promptly send it to the district office. The specific deadline for submittal may vary by district.

5-103F (2) Computer Processing

Once you have made your entries on Form CEM-6101, “Project Record—Estimate Request,” and transferred them to the computer, the system edits the estimates and then produces reports showing the results of the system’s processing.

5-103F (2a) Estimate Edits

Once Form CEM-6101, “Project Record—Estimate Request,” has been entered into CAS, the system will do the following:

- Edit Form CEM-6101 for consistency with previous estimates and with the working days calendar stored in the computer.

- Identify and summarize all daily extra work reports entered in the system and eligible for payment since the last estimate.
- Identify and summarize all contract transactions entered in the system since the last estimate.
- Identify and balance the change orders that require balancing.
- Identify and balance the contract items that require balancing.
- Make calculations for the item “Mobilization,” if necessary, for the various deductions and retentions, for percent time elapsed, for percent complete, and for various status totals, such as authorized final cost. The system also determines whether the contractor’s progress is satisfactory.
- Edit any deduction submitted for processing on Form CEM-6101, “Project Record—Estimate Request.” Special attention is given to three of the deductions as follows:
 - If the resident engineer has submitted an EEO deduction, CAS computes the amount as 10 percent of the contract item payment on this estimate, or a minimum of \$1,000 or a maximum of \$10,000, and places the deduction on file.
 - If the resident engineer has submitted an LCV deduction, the system performs the same calculation as for EEO deductions.
 - If the resident engineer has submitted an OOD deduction, the system will compute the deduction under the following conditions:
 - The contract has been completed, or retention is being reduced because the percentage complete exceeds 95 percent. If one of these conditions is not met, the deduction will be rejected.
 - The total of all OOD deductions from previous estimates must be zero, or the deduction will be rejected. An OOD deduction should be taken only once for a contract.
 - If the first two conditions are met, the amount of the deduction is calculated as 5 percent of the total work completed to date less mobilization, or \$10,000, whichever is less.
- Process further deductions as follows:
 - If the total to date for an OOD deduction is negative, the system will check whether the value has changed since the last estimate for total work completed to date less mobilization. If the value has changed, the system will generate a new OOD deduction with a description, “MAINTAIN OOD DEDUCT,” and an amount equal to the difference between the amount demanded by the formula and the amount of the total to date for this type of deduction. Thus, an OOD deduction, once submitted, will be maintained at the formula’s value unless it is exactly reversed by a positive deduction entry on Form CEM-6101, “Project Record—Estimate Request.”

- For each type of deduction, you cannot give back more than has been taken. If you make this error, the estimate will fail. Messages are produced stating which deduction is in error.
- At this point in the processing, the final values are computed for total work completed and total payment to the contractor. If there are “Limitation of Payment” dates and amounts in the special provisions for this contract, the Division of Construction progress pay coordinator will have entered them in the computer. The system will check the period ending date of this estimate and will generate or return any split-year-financing deductions that are necessary under the contract’s terms.
- If retention is being released on this estimate and the total to date for liquidated damages is zero, the system will issue a warning message.
- The system automatically computes overbid item deductions as required. These deductions are taken and returned at the appropriate times.
- Make calculations for the progress payment voucher, including retentions and payments to escrow accounts.
- If processing is successful, CAS prints your estimate.
- If this estimate is for a zero or negative progress payment, the system prints a status purpose only estimate.
 - If the total authorized final cost is greater than the construction allotment, CAS will issue a severe warning.
 - If the total payment to date to the contractor on this estimate is greater than the construction allotment, the estimate will fail.

5-103F (2b) Estimate Output

Once CAS has processed the estimates, it produces the following reports:

- Schedule of extra work
- Schedule of deductions
- Project record estimate
- Project status
- Work done by Structures
- Progress payment voucher

Only two copies of the estimate will be sent to the field, one for the resident engineer and one for the contractor. The contractor also must receive copies of the reports listed.

In addition to the estimate documents previously listed, CAS also produces a report called “Estimate Processing Results.” This report is the tool by which the resident engineer can check the “estimate package.” This report has the following sections:

- **Edit messages:** The system can produce many possible messages. If the estimate is rejected, the exact reason will be found here. To assist in preventing overpayments, among other problems, warning messages have been set based on carefully chosen tolerances. Read these messages carefully.
- **Transaction selection:** The system will print a list of the exact pages and lines of contract transactions that were used to produce the estimate. This list enables you to verify that all the contract transactions you submitted were used to produce the estimate.
- **Change order processing:** This lists any balancing of change orders by the system. Occasionally, the list also contains warning messages.
- **Contract item processing:** This part of the report does the same things as described for change order processing, but for contract items instead of change orders.
- **Contract transactions list:** This list identifies all contract transactions used to generate your estimate. If you question any line item on the project record-estimate, examine the detailed records to see how the system derived its totals.
- **Structure totals:** This item summarizes all structure work the system found while processing the estimate.

5-103F (3) Potential Problems

For the unwary, several points in the estimate process can cause errors. These problems result from misunderstanding what constitutes an estimate and how the estimate number should be increased from estimate to estimate.

On the title page of the project record estimate and in the estimate processing results, the system will print the type of estimate generated. If the estimate is one of the five types listed in Section 5-103F, “Generating Estimates,” of this manual a valid estimate was generated.

The progress pay system requires that the estimate number be increased only by valid estimates. Thus, if you request estimate number 3 to be processed, but the system generates a status-purpose-only estimate, a valid estimate was not generated. Request estimate number 3 again for the next estimate.

Another potential problem involves two types of contract transactions: materials on hand and anticipated changes. These transactions apply to a specific estimate period. If the estimate generated by the system is a status-purpose-only estimate, these transactions have not been “used.” They will appear on the next valid estimate generated. If their appearance on the next estimate is not satisfactory, you must use reversing entries before requesting the next estimate from the system.

If the estimate has failed for any reason, the system will print, with one exception, as many of the estimate reports as possible to help you analyze the problem. The one exception, the progress payment voucher, is only printed for successful estimates that are eligible for payment according to the system’s standards.

Processing the estimate is done by a series of computer programs that perform the following functions:

- Edit data input on Form CEM-6101, “Project Record—Estimate Request.”
- Select from the computer file the change order bills that will be used to generate this estimate.
- Select from the computer file the contract transactions that will be used to generate this estimate.
- Process the change orders.
- Process contract items.
- Process deductions.
- Conduct miscellaneous computations.
- Generate reports.

5-103G Approval of Estimates

The authorization of an estimate depends on the type of estimate being run. The following is the general outline and method for approving contract estimates.

5-103G (1) Resident Engineer

After an estimate has been run, the resident engineer must authorize it before the process of payment is continued. To expedite payment, the resident engineer can authorize through a memo, form letter, or telephone call with subsequent written confirmation to the district office.

5-103G (2) District Director

At the time the estimate was produced, so was a payment voucher. If the estimate is a final estimate, an individual who has been formally delegated by the district director to do so must sign the form.

5-103G (3) Flagging an Estimate for Payment

Flagging an estimate in the computer system for payment indicates that a payment voucher has been verified and authorized.

For payments on after-acceptance estimates, semifinal estimates, and final estimates, the Division of Construction progress pay coordinator must flag the estimates in the computer system for payment after the district’s flagging.

5-103H Reports Available Through the Contract Administration System

CAS online reporting through CA-Output Management Web Viewer is available at:

<https://gc.webviewer.cdt.ca.gov/CAOMWebViewer12/login.jsf>

CA-View user guide and tips may be found on the Information Technology Onramp page called “Information About CAS.”

5-103H (1) District (XX) Estimate Status

This report, which is also available statewide, provides information on the pay status of each contract in the district. For each contract, the report includes the following:

- Contract number
- Date of last estimate processed, if there was one
- Number of the estimate
- Number of days elapsed since the estimate was processed
- Type of estimate
- Pay status and date paid
- Date on which the payment voucher was authorized
- Resident engineer's name and phone number
- Responsible unit
- Password

5-103H (2) Project Management

The project management report is for use by the district office and Division of Construction managers. This report consists of the following two separate reports that are produced whenever "Project Management" is requested.

5-103H (2a) Project File Status Report

This report lists all contracts in the district or statewide that are on the computer's active list. For each contract, the report provides the following information:

- Contract number
- Status
- Date bids were opened
- Date of award
- Date of approval
- Date of acceptance
- Bid amount
- Name of contractor

After bid opening, projects are added to the list automatically. After the final estimate and approvals from the districts and the disbursing office, the Division of Construction removes the projects from the list.

5-103H (2b) Exceptional Contracts Report

This report lists all contracts for which the following applies:

- More than 60 days have elapsed since the bid opening.

- More than 10 days have elapsed since the completion date and the contract needs an acceptance date.
- More than 45 days have elapsed since completion, but the proposed final estimates have not been run.
- More than 180 days have elapsed since completion, but the final estimates have not been run.

5-103H (3) District (XX) Project Status

This report is for use by construction managers. It lists all active contracts, and for each contract, provides the following information:

- Contract number
- Contractor's name and county-route-postmile
- Date of the last estimate
- Percentage complete
- Percentage of time elapsed
- Construction allotment
- Total amount paid to date
- Estimated final cost
- Estimated final contingency balance

5-103H (4) Progress Payment-Work Done by Structure Construction (Copies)

This report is for use by Structure Construction. For details, refer to Section 6, "Estimates," of the *Bridge Construction Records and Procedures* manual, Vol. 1.

5-103H (5) Project Record-Estimate (Copies)

A request for estimate copies will produce all of the documents that were produced automatically during the previous estimate's run; you should not need to order copies through this program. For the estimate, the report contains the following information:

- Schedule of extra work
- Schedule of deductions
- Project record-estimate
- Project status
- Progress payment voucher

5-103H (6) Status of Contract Items

The district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60, "Contract Administration System Inputs and Reports."

For this report, the system prints one line of information for each contract item and summarizes the net effect of all contract transactions that have been entered against the item. This report allows the resident engineer to review each item and determine whether quantity balances and anticipated changes, among other things, are necessary.

If any particular number on the report seems questionable, the project record item sheets provide supporting detail. For example, if the authorized quantity differs from the bid quantity, the project record item sheets describe, under the item number, any changes because of change orders.

When applicable, take particular care to flag an item “COMPLETE” using the item final balance transaction on Form CEM-6101, “Project Record—Estimate Request” so that an accurate project status will be produced. Remember, flagging an item “COMPLETE” does not mean that contract item transactions will no longer be accepted; it means only that you have commanded the system to keep the item in balance at all times.

5-103H (7) Project Record Item Sheet

The district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60, “Contract Administration System Inputs and Reports.”

With the following exceptions, the project record item sheets list every contract transaction entered into the system since the beginning of the contract:

- Item and change order final balance transactions will appear only on the report following the next estimate. Thereafter, they are dropped from the report.
- Miscellaneous anticipated change transactions also appear only on the report following the next estimate.

The report lists the contract transactions, first by the estimate number on which they were paid, and then by the page and line number of the input form. The total to date will be printed.

This is a cumulative report. Do not retain previous issues of this report in the project files. However, one issue of the report, usually the one requested immediately after all final quantities have been paid, must be retained in the project’s files.

5-103H (8) Status of Change Orders

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60, “Contract Administration System Inputs and Reports.”

This report is similar to the status of contract items, which allows the engineer to review each change order.

Use the report to determine when supplemental change orders will be necessary to complete the work. The report also facilitates a review of those change orders where a credit is due Caltrans.

When applicable, flag change orders “COMPLETE” using the change order final balance transaction, so that an accurate project status can be produced. Similar to flagging a contract item, flagging a change order “COMPLETE” means only that you have commanded the system to keep the change order in balance at all times.

5-103H (9) Change Order Master Listing

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60.

This report summarizes all change orders stored in the computer file. It also contains the change order time extension and change order category code. The report lists each individual supplement with all the information the system contains. Do not retain previous issues in the project’s files. However, one issue, usually the one requested immediately after final payment has been made on all change orders, must be retained in the project’s files.

5-103H (10) Bridge Quantities by Structure

This report is for use by Structure Construction personnel. It is available on all projects for which Form CEM-6003, “Progress Pay—Estimate Project Initiation or Update,” has been filed. The filing of this form indicates a structure work amount and structure numbers have been entered for the contract transaction in accordance with the instructions in Section 6, “Estimates,” of the *Bridge Construction Records and Procedures* manual, Vol. 1.

5-103H (11) District (XX) Status of Anticipated Changes

This report is for use by the district and Division of Construction managers.

5-103H (12) Project Record-Estimate (Dummy)

A request for this item will produce the same form that was produced automatically when Form CEM-6003, “Progress Pay—Estimate Project Initiation or Update,” was filed.

This form is identical to a project record-estimate, except that it does not contain an estimate number or dates and no entries appear under “This Estimate” or “Total Estimate.” It is a blank estimate form, valuable only if it became necessary to make an estimate manually.

5-103H (13) Contract Contents Report

This report contains information that is currently in the file as a result of automatic entries or entries from Form CEM-6003 “Progress Pay—Estimate Project Initiation or Update.”

Most of the information in this report is included already in other reports and forms that are produced automatically. Therefore, you do not need to request it routinely.

5-103H (14) Contract Contents Report-Contract Item Records

This report provides the following information:

- Contract item number
- Contract item index number
- Item description
- Unit of measure
- Bid price
- Bid quantity
- Bid amount
- Amount overbid
- Void items
- Plant establishment items

Most of the information in this report is included already in other reports and forms that are produced automatically. Therefore, you do not need it for routine contract administration.

5-103H (15) Contract Contents Report-Contract Progress

For each contract item, this report includes a detailed analysis of the current and previous quantities and payment status. It also summarizes all other payments or deductions as well as data on contract time. The information in this report is included already in other reports that are produced automatically. Therefore, you do not need it for routine contract administration.

5-103H (16) DEWRs in Holding File

This daily extra work report lists change order bills that are in the holding file for all contracts in the district. If there are reports in the holding file, process supplemental change orders to provide additional funds. The bill must be re-approved in the iEWB system in order to be released for payment on the next estimate.

5-103H (17) Daily Extra Work Report

Copies of daily extra work reports are produced under the procedure outlined in Section 5-103E, "Change Order Billing," of this manual. You can obtain copies by using the second page of the report request form or receive reports directly from the iEWB system. Refer to the *iEWB User Guide* for details.

5-103H (18) Rental Rates and Codes for Miscellaneous Equipment

This report provides a listing of equipment codes and related descriptive information for equipment that is not included in the *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book.

5-103H (19) Reports for Structure Construction

In addition to the reports discussed above, CAS provides reports for Structure Construction. For details, refer to Section 6, “Estimates,” of the *Bridge Construction Records and Procedures* manual, Vol. 1.

5-103I Field Audits by Accounting Office

In accordance with instructions from the Division of Administrative Services, personnel from the Accounting Office will periodically review record-keeping procedures for construction projects. The accounting reviewer will prepare a report of the findings, a copy of which will be sent to the deputy district director of Construction and the resident engineer.

District Construction must then report back to the Accounting Office, stating what actions it took in response to the report’s recommendations. If the district’s actions result in a dispute, the deputy district director of Construction will resolve the dispute.

5-104 Final Construction Project Records

5-104A General

Construction project records consist of all material in the construction files, whether in the field office, the district construction office, or filed on the Falcon electronic document management system (FalconDMS). This section contains guidelines for the disposition of construction project records after Caltrans makes the final payment to the contractor. This section also provides guidelines for allowing public access to construction project records and for producing a set of as-built plans for each completed construction project. In addition to construction project records, the district keeps a project history file.

For construction project records not stored on FalconDMS, when the construction project is completed, the resident engineer initiates assembly of the project history file by transmitting designated records to the district Construction Unit for compilation. The project history file is stored in a secure, central file location within the district. For information about the project history file, refer to Chapter 7, “Uniform Filing System,” of the *Project Development Procedures Manual*. The construction records retention schedule, Form STD 73, “Records Retention Schedule,” lists records that are retained by the districts and Construction headquarters. For specific records stored in the project history file, refer to Section 5-104C, “Disposition of Construction Project Records,” of this manual.

For construction project records that are solely stored on FalconDMS, the project records will be retained in FalconDMS on the district server. When project files are stored on FalconDMS, there is no need to assemble a hardcopy project history file for retention in the district Construction office. Records will be retained on FalconDMS in accordance with the requirements listed in section 5-104C, and the retention schedule will be managed within FalconDMS.

When resident engineers on construction projects with an award date before July 1, 2021, choose to switch from storing project records in hardcopy format to storing

projects records on FalconDMS midway through the project, the resident engineer must initiate assembly of the project history file in electronic format by having the designated hardcopy records scanned and saved electronically and combined with the designated electronic records stored on FalconDMS. The remainder of the project records can be retained in both hardcopy and electronic format in accordance with the requirements listed in section 5-104C.

5-104B Public Access to Project Records

The California Public Records Act permits anyone to obtain any written information relating to the conduct of the public's business that is prepared, owned, used, or retained by any state agency, regardless of the physical form or characteristic of the writing. Although the act includes exemptions for certain categories of records, most construction project records fall within the description of documents that must be produced upon proper demand. Except for preliminary drafts or notes that are not retained in the ordinary course of business, permanent project records that are reasonably identified are subject to inspection and copy.

Records exempt from disclosure include the following:

- Estimated project cost before bidding.
- Contract claim analysis.
- Personal information, such as home addresses, telephone numbers, medical records, and similar files, the disclosure of which would constitute an unwarranted invasion of personal privacy.
- Accident reports. If accident reports produced by another agency are requested, such as accident reports by the California Highway Patrol, refer the requester to the other agency.

If copies of payroll records are requested, refer to Section 7-1.02K(3), "Certified Payroll Records (California Labor Code, §1776)," of the *Standard Specifications* for the procedures to follow.

Resident engineers should refer all requests for copies of any records to the district Construction office and follow procedures established in the district for copying and charging for record copies.

Allow contractors and subcontractors to review records used to determine contract payment in the construction field office.

5-104C Disposition of Construction Project Records

District Construction personnel who are responsible for the disposition of construction project records must coordinate their activities with the district records officer.

District Construction offices must follow the statewide procedure for handling project records. This procedure is in accordance with the statewide records retention schedule and achieves the following objectives:

- Relieve the resident engineer of the responsibility for storing the records before or at the time final payment is made.
- Avoid unnecessary long-term storage of duplicate copies.
- Before the records are destroyed, transfer material that has historical value to the project history file.
- Retain construction project records in accordance with Table 5-1.1, “Construction Records Retention Schedule,” of this manual and as follows:
 1. For projects that involve federal participation, retain the records for a minimum of 3 years after submission of the final federal voucher.
 2. For projects that do not involve federal participation, retain the records for a minimum of 3 years after the date on which the final estimate is scheduled for payment.
 3. For projects on which some legal question exists, such as a pending claim, a labor compliance case, or litigation, retain the records for 3 years after settlement. The district Construction office must send a memorandum to the district records officer to hold these records until further notice.

After records from the resident engineer’s office are sent to the district Construction office, eliminate duplicate records.

The construction project records retention schedule lists the length of time certain files must be retained, as well as files that must be kept permanently in the project history files in accordance with federal requirements.

Table 5-1.1. Construction Records Retention Schedule (1 of 6)

Project Record Category	Project Funding Type	Retention
1. Project Personnel	State only	Until final estimate
2. Project Office Equipment and Supplies	State only	Until final estimate
3. Equipment and Personnel Cost Reports	State only	Until final estimate
4. Service Contracts	State only	Until final estimate
5. General Correspondence	State or Federal	3 years beyond final estimate or final federal voucher
6. Safety	State or Federal	3 years beyond final estimate or final federal voucher
7. Public Relations	State only	Final estimate
8. Construction Surveys	State or Federal	3 years beyond final estimate or final federal voucher
9. Welding	State or Federal	3 years beyond final estimate or final federal voucher
10. (Extra category number)	To be announced	To be announced
11. Information Furnished at Start of Project (except documents listed in 11a-f)	State or Federal	3 years beyond final estimate or final federal voucher
11a. Detail Estimate of Project Cost	Federal and State	Permanent project file
11b. Notice of Award of Contract	Federal and State	Permanent project file
11c. Contract Special Provisions and Addendums	Federal and State	Permanent project file
11d. Notice of Approval of the Contract	Federal and State	Permanent project file
11e. Executed Contract	Federal and State	Permanent project file
11f. Bid Book	Federal and State	Permanent project file
12. Contractor (except 12a documents)	State or Federal	3 years beyond final estimate or final federal voucher
12a. Contractor's Borrow Agreements	Federal and State	Permanent project file

Table 5-1.1. Construction Records Retention Schedule (2 of 6)

Project Record Category	Project Funding Type	Retention
13. Signs and Striping	State or Federal	3 years beyond final estimate or final federal voucher
14. Photo Records	Federal and State	Permanent project File
15. Accidents	State or Federal	3 years beyond final estimate or final federal voucher
16. Utility Agreements	State or Federal	Permanent project file
17. Utility Work Performed	State or Federal	3 years beyond final estimate or final federal voucher
18. Agreements (except documents listed in 18a-e)	State or Federal	3 years beyond final estimate or final federal voucher
18a. Right of Way Agreements (with or without obligation)	Federal and State	Permanent project file
18b. Forest Service Agreements	Federal and State	Permanent project file
18c. Borrow Agreements (between state and owner)	Federal and State	Permanent project file
18d. Disposal Agreements (between state and owner)	Federal and State	Permanent project file
18e. Service Agreements (charged to contract allotment)	Federal and State	Permanent project file
19. Hazardous Waste and Hazardous Materials	Federal and State	Permanent project file
20. Water Pollution Control Plan or Stormwater Pollution Prevention Plan	State or Federal	3 years beyond final estimate or final federal voucher
21. Construction or Maintenance Zone Enhanced Enforcement Program	State or Federal	3 years beyond final estimate or final federal voucher
22. Traffic Management Information	State or Federal	3 years beyond final estimate or final federal voucher
23. Temporary Pedestrian Access Routes	State only	Until final estimate

Table 5-1.1. Construction Records Retention Schedule (3 of 6)

Project Record Category	Project Funding Type	Retention
24. Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises	State or Federal	3 years beyond final estimate or final federal voucher
25. Labor Compliance and Equal Employment Opportunity	State or Federal	3 years beyond final estimate or final federal voucher
26. Progress Schedule	State or Federal	3 years beyond final estimate or final federal voucher
27. Weekly Statement of Working Days	State or Federal	3 years beyond final estimate or final federal voucher
28. Weekly Newsletter	State only	Until final estimate
29. Materials information and Preliminary Tests	State or Federal	3 years beyond final estimate or final federal voucher
30. Basement Soil Test Results	State or Federal	3 years beyond final estimate or final federal voucher
31. Notice of Materials to be Used	State or Federal	3 years beyond final estimate or final federal voucher
32. Notice of Materials to be Inspected for the Job Site	State or Federal	3 years beyond final estimate or final federal voucher
33. Notice of Materials to be Furnished	State or Federal	3 years beyond final estimate or final federal voucher
34. Treated Base	State or Federal	3 years beyond final estimate or final federal voucher
35. Hot Mix Asphalt	State or Federal	3 years beyond final estimate or final federal voucher
36. Concrete (other than structure items)	State or Federal	3 years beyond final estimate or final federal voucher

Table 5-1.1. Construction Records Retention Schedule (4 of 6)

Project Record Category	Project Funding Type	Retention
37. Initial Tests and Acceptance Tests	State or Federal	3 years beyond final estimate or final federal voucher
38. Quality Control	State or Federal	3 years beyond final estimate or final federal voucher
39. Materials Testing Qualifications of Employees	State or Federal	3 years beyond final estimate or final federal voucher
40. Field Laboratory Assistant Reports to Resident Engineer	State or Federal	3 years beyond final estimate or final federal voucher
41. Report of Inspection Material	State or Federal	3 years beyond final estimate or final federal voucher
42. Material Plants	State or Federal	3 years beyond final estimate or final federal voucher
43. Concrete and Reinforcing Steel	State or Federal	3 years beyond final estimate or final federal voucher
44. Recycle Materials and Diversion of Solid Waste	State or Federal	3 years beyond final estimate or final federal voucher
45. Resident Engineer's Daily Reports	State or Federal	3 years beyond final estimate or final federal voucher
46. Assistant Resident Engineer's Daily Reports	State or Federal	3 years beyond final estimate or final federal voucher
47. Drainage Systems	State or Federal	3 years beyond final estimate or final federal voucher
48. Bid Item Quantity Documents	State or Federal	3 years beyond final estimate or final federal voucher
49. Change orders (except documents listed in 49a-b)	State or Federal	3 years beyond final estimate or final federal voucher

Table 5-1.1. Construction Records Retention Schedule (5 of 6)

Project Record Category	Project Funding Type	Retention
49a. Change Orders (no drafts)	Federal and State	Permanent project files
49b. Memorandums (no drafts)	Federal and State	Permanent project files
50. Adjustment in Compensation Calculations	State or Federal	3 years beyond final estimate or final federal voucher
51. Materials on Hand	State or Federal	3 years beyond final estimate or final federal voucher
52. Charges to Total Contract Allotment	State or Federal	3 years beyond final estimate or final federal voucher
53. Credit to Contract	State or Federal	3 years beyond final estimate or final federal voucher
54. Deductions from Payment to Contractor	State or Federal	3 years beyond final estimate or final federal voucher
55. Partnering	State or Federal	3 years beyond final estimate or final federal voucher
56. (Extra category number)	To be announced	To be announced
57. Permanent Pedestrian Facilities	State or Federal	3 years beyond final estimate or final federal voucher
58. (Extra category number)	To be announced	To be announced
59. Bridge Estimate Data	State or Federal	3 years beyond final estimate or final federal voucher
60. Contract Administration System Inputs and Reports	State or Federal	3 years beyond final estimate or final federal voucher
61. Estimate and Project Status (except documents listed in 61a-b)	State or Federal	3 years beyond final estimate or final federal voucher
61a. Final Estimate	Federal and State	Permanent project records
61b. Invoice and Receiving Records (if applicable)	Federal and State	Permanent project records

Table 5-1.1. Construction Records Retention Schedule (6 of 6)

Project Record Category	Project Funding Type	Retention
62. Disputes	State or Federal	3 years beyond final estimate or final federal voucher
63. Project Completion Documents (except documents listed in 63a-c)	State or Federal	3 years beyond final estimate or final federal voucher
63a. Contract Acceptance	Federal and State	Permanent project records
63b. Final Materials Certification	Federal and State	Permanent project records
63c. Final Acceptance Checklist for Federal Aid High Profile Projects	Federal and State	Permanent project records

Prepare a transmittal list specifying the contents of each box when records are sent from the district Construction office to the State Records Center or to another district. In a separate file in the district construction office, retain a copy of the transmittal list. Files stored electronically must also be sent.

The *Bridge Construction Records and Procedures* manual should be referenced for structure-related records that are transmitted to Structure Construction at the completion of the project for permanent storage.

5-104D As-Built Plans

Districts are responsible for all as-built road plans, and Structure Design is responsible for all as-built structure plans. To handle as-built plans, use the following procedure:

- The district Design Unit will give the resident engineer full-size prints of all road plans. Prints of structure plans will be supplied to the structure representative. The plans may also be transmitted in electronic form when field forces have the capability of computer-aided drafting and design (CADD). As-built information is recorded on the full-size drawings or recorded on a set of contract plans using CADD.
- Each sheet of as-built plans must be clearly identified as such. All sheets upon which changes are made must contain the name of the resident engineer or structure representative.

5-104D (1) District Procedure on As-Built Plans

The district will maintain a set of original project plan sheets. Field changes will be made on full-size prints or in a field CADD system and afterward transferred to the original CADD files in the district office. The set of plans, with changes delineated by the district Design Unit, becomes the as-built plans.

To attain uniformity in final project plans, include the following data on the as-built plans:

- Change order number
- Revisions in alignment and right-of-way
- Grade revisions in excess of 0.1 foot
- Changes in length, size, flow line elevations, and station of culverts. When alternate types of culverts are permitted, show which alternate was used
- Drainage changes
- Location of sewers, conduits, and other features
- Location of monuments, bench marks, freeway fences, and gates
- Revision of typical cross sections
- Changes in pavement lanes, tapers, ramps, frontage roads, road connections, driveways, sidewalks, islands, and median openings
- Curb and gutter changes
- Electrical conduits, pull boxes, vaults, cabinets, enclosures, and service points
- Revision in location of utility crossings and irrigation crossovers

Do not show the following on as-built plans:

- Construction quantities
- Property fences
- Miscellaneous small features, such as markers and delineators, which are readily changed by maintenance forces

The resident engineer must complete the as-built plans as soon as possible after work is completed to assure compliance with the archiving of as-built plans, but no later than 90 days after contract acceptance.

After the district Design Unit has completed the transfer of as-built information on the final as-built drawings, the unit will return the plans to the resident engineer for review and signature of final approval. For the processing and disposition of as-built plans after the construction review, refer to Chapter 15, "Final Project Development Procedures," of the *Project Development Procedures Manual*.

5-104D (2) Procedure on As-Built Plans for Bridges and Structures

Structure Construction must handle structure as-built plans in the following manner:

- From the resident engineer, obtain full-size prints of all sheets with "Structure" signature blocks. If these prints are not available from the resident engineer, the structure representative must contact Structure Design.
- The structure representative will make the as-built corrections to these prints and forward them to Sacramento Structure Construction. These corrected prints must

be forwarded to the Sacramento office as soon as possible after completion of the structures, but no later than 30 days after the completion of the project.

- For prints of projects consisting solely of roadside rest or maintenance facilities, Sacramento Structure Construction must forward the prints directly to Structure Design, Documents Unit. All other projects must be forwarded to Structure Maintenance and Investigations, which determines which sheets should be microfilmed for the structure files.
- Prints not identified for filing by Structure Maintenance and Investigations will be forwarded to the appropriate district office for the preparation of as-built plan sheets. Structure Design will make the as-built corrections on the original plan sheets. If the original plan sheet is not currently stored in Structure Design, it may be obtained from the district.

On state projects that do not have a representative from Structure Construction, the resident engineer must make the as-built changes on the prints bearing “Structure” signature blocks. As soon as possible after completion of the structures, forward the prints to Structure Construction in Sacramento. The previously listed procedure must then be followed.

On projects funded by others, where the local entity or private entity is the sponsor, follow the procedure for as-built plans for bridges and structures described in *Special Funded Projects’ Information and Procedures Guide* and the *Encroachment Permits Manual*.

For additional guidelines and details for completing structure as-built plans, refer to the *Bridge Construction Records and Procedures* manual.

5-104D (3) Projects Not on State Highways

- On all district-administered projects not on state highways, the information to be included on as-builts will remain the same as for contracts on state highways. The district will be fully responsible for completing as-built project plans and forwarding them to the local agencies. If desired, the district can make a copy of the plans for their own records before returning them to the local agencies.
- The engineer responsible for structure work will place as-built corrections on structure plans of all state and federally funded projects for local roads and streets. On Caltrans administered contracts, follow normal Caltrans procedures for processing these plans. On locally administered contracts, the engineer responsible for structure work will provide Special Funded Projects, Structures Local Assistance, a set of original tracings or duplicates of reproducible quality with as-built corrections. After microfilming, return these tracings or duplicates to the local agency.