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SUPERSEDES Sections 3-6 of July 2019, and 3-8 of November 2021	DISTRIBUTION All Requested Manual Holders	

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:

MCT 22-2 [3/28/2022]

Section 3-6, “Control of Materials”

Updates include information on maximum acceptable global warming potential limits of Buy Clean California Act requirements. Authorized material list and EPD action submittal requirements are based on eligible material type. Contractors must report-quantity information for Buy Clean California Act compliant materials through the Data Interchange for Materials Engineering system.

Section 3-8, “Prosecution and Progress”

Changes to this section include Construction personnel’s involvement in determining applicable scheduling requirements during the PS&E phase by evaluating project risk variables, guidance regarding the two levels of critical path method scheduling requirements, and increased focus on communication throughout the project with regard to scheduling and contract time.

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Section 6 Control of Materials

3-601 General

Section 6, “Control of Materials,” of the *Standard Specifications*, describes the contractor’s responsibilities regarding materials used on the project.

The service life of a properly designed highway depends on the construction methods and quality of materials used in the highway’s construction. The resident engineer must verify that materials used in the work comply with contract specifications. This section presents general guidelines for assuring that specifications are met.

Materials Engineering and Testing Services (METS) will assign inspectors for materials that require inspection during manufacture or at the source of supply. Obtain a properly completed Form CEM-3101, “Notice of Materials to Be Used,” which lists the contractor’s sources of materials and the location at which those materials can be inspected. Review this form to verify that all expected materials are included, then forward the completed form to METS. METS will assure the proper assignment of inspectors and notify the suppliers of the required inspections. Refer to Section 6-202, “Responsibilities for Acceptance of Manufactured or Fabricated Materials and Products,” of this manual for additional information.

For a list of products inspected by METS, refer to Table 6-2.1, “Inspection of Fabricated and Manufactured Materials,” of this manual.

Not all products will be inspected by METS. METS has assigned to the resident engineer the inspection and release at the job site of products listed in Table 6-2.2, “Materials Acceptance Based on Authorized Material List,” and Table 6-2.3, “Materials Accepted by Certificate of Compliance,” of this manual.

Do not allow any material to be incorporated into the work until the required evidence or certificate of compliance has been received and until the field inspection has been completed at the job site.

3-602 Department-Furnished Materials

Section 6-1.02, “Department-Furnished Materials,” of the *Standard Specifications* describes the conditions under which the contractor receives materials. The resident engineer’s duties related to these materials include the following:

- Review the special provisions for materials to be Department-furnished. For materials manufactured specifically for the project, such as signs, check with the district unit responsible for ordering them to make sure they will be available when the contractor requests them.
- Obtain the contractor’s written request for all Department-furnished materials. Retain a copy of the request in the project file under Category 52, “Charges to Total Contract Allotment.”

- Verify that the contractor signs a receipt for the materials when they are delivered. Retain a copy of the receipt in the project file.
- If Department-furnished materials are damaged or lost, deduct a sufficient amount from the contractor's monthly estimate to cover the estimated cost of repair or replacement, pending such repair or replacement.
- Assure the return or disposal of Department-furnished material that has not been used in the work.

3-603 Local Materials

Section 6-1.03, "Local Materials," of the *Standard Specifications*, covers the requirements for the use of local materials and the resident engineer's responsibility for testing the material. This section also requires the contractor to furnish material from any source the contractor may elect; however, when mandatory local sources of certain materials are designated in the special provisions or on the plans, the contractor must furnish material from those designated mandatory sources.

If the contractor elects to obtain material from a non-mandatory local source, the contractor is responsible for making all arrangements necessary to obtain materials from that source. The contractor must furnish the resident engineer with a copy of the contractor's agreement with the property owner and provide copies of all necessary permits, licenses, and environmental clearances **before** removing any material. Refer to Section 3-510, "Coordination With Other Entities," of this manual and Section 5-1.20, "Coordination With Other Entities," of the *Standard Specifications* for additional information.

If Caltrans has entered into agreements with property owners in the vicinity of a project for obtaining material from an owner's property, the arrangements are made solely for the purpose of providing all bidders an equal opportunity to obtain material from that property. Provide the contractor a copy of the agreement between Caltrans and the property owner. Refer to Section 3-510 of this manual for more information.

The special provisions may require the contractor to obtain materials from a specified source. It may be necessary for the contractor to process the material as indicated in the special provisions to produce acceptable materials from this source.

If the resident engineer determines that the specified local material source can no longer be used for any reason, designate an alternative local material source for the balance of the material. Pay for the costs associated with the change in material source as extra work.

Occasionally, it becomes necessary to obtain additional embankment material from outside the local area and there is no item for "imported borrow." Under these circumstances, it is normal practice for Caltrans to locate an alternative source for this material. Consult with the district materials engineer for help locating an alternative material source.

In accordance with the State Contract Act, material sources must comply with the Surface Mining and Reclamation Act of 1975 (SMARA). Refer to Chapter 7, "Environmental Stewardship," of this manual and the Department of Conservation's

website at the link provided later in this section for further information regarding SMARA requirements.

If a change order directs the contractor to obtain material from Caltrans' chosen source, the Federal Highway Administration (FHWA) considers the source mandatory. The FHWA then requires written approval of a public interest finding before approval of the change order.

At a minimum, the public interest finding, written by the resident engineer, must include the following:

- The reason the chosen source is the most economical. If the determination is not based on economy, other reasons such as public safety or convenience must be included.
- The alternatives considered.
- The effect on the value of the material site.

All such sites are subject to compliance with SMARA. Mining operations determined to be in compliance are listed on the AB 3098 SMARA Eligible List. This list can be obtained from the Division of Construction or at the Department of Conservation's website:

<https://www.conservation.ca.gov/dmr>

The requirements **listed** do not apply to "local borrow," as defined in Section 19-7, "Borrow Material," of the *Standard Specifications*. Refer to Chapter 7, "Environmental Stewardship," of this manual for a list of mining operations that are or are not subject to SMARA requirements.

3-604 Buy America

Section 6-1.04 "Buy America" of the *Standard Specifications* includes Buy America provisions for crumb rubber, steel, and iron materials. Buy America provisions apply to Caltrans projects regardless of funding source, unless the special provisions indicate otherwise.

3-604A Crumb Rubber

Buy America requirements apply to crumb rubber incorporated into the work. The crumb rubber must be produced in the United States and derived from waste tires taken from vehicles owned and operated in the United States. Verify that the contractor submits a certificate of compliance with furnished crumb rubber showing compliance with Buy America requirements.

3-604B Steel and Iron Materials

Buy America requirements apply to steel and iron materials permanently incorporated into the work. This includes steel and iron components of a manufactured product regardless of the overall composition of the manufactured product. For example, Buy America applies to the steel welded wire reinforcement or steel reinforcing components of a precast reinforced concrete pipe.

The steel and iron materials must be melted and manufactured in the United States, except that foreign pig iron or processed, pelletized, and reduced iron ore may be used in the domestic production of the steel and iron materials.

Manufacturing begins with the initial melting and mixing and continues through the bending and coating stages. Coating includes all processes that protect or enhance the value of the material to which the coating is applied.

The manufacturing process for a product with steel or iron content is considered complete when the product is ready for use in items such as fencing, posts, and girders. It could also be considered complete if the material is installed as a component of a more complex product through further assembly, as is the case for a traffic signal head. The final assembly process does not need to be accomplished domestically as long as the steel or iron component is only installed and no manufacturing process is performed on the steel or iron component.

A certificate of compliance from the manufacturer, not the contractor, showing compliance with Buy America requirements must accompany products with steel or iron content. Verify receipt of the required certificates of compliance and mill test reports.

3-604B (1) Resident Engineer Approval of Minimum Use Requirements

Buy America requirements do not apply to a minimal use of steel and iron materials incorporated in the work as specified in Section 6-1.04C, “Steel and Iron Materials,” of the *Standard Specifications*.

Before incorporating foreign steel and iron materials into the work, the contractor must submit documentation regarding the quantity and value of the foreign steel and iron to the resident engineer. Review the documentation to determine if it supports the minimum-use rule before allowing the material to be incorporated into the project. If the minimum-use rule applies, approve the exception in writing. This applies as a one-time total exemption for each contract and not for each purchase. File the documentation, exceptions, and a running total of the value of minimum-use foreign steel and iron under Category 41, “Report of Inspection of Material.”

3-604B (2) Federal Highway Administration Approval of Waivers

Caltrans does not have the authority to allow the use of foreign steel and iron content in products subject to Buy America in federal-aid projects without FHWA approval, except under the minimum-use rule. The California FHWA division administrator may grant waivers only upon receiving concurrence from FHWA headquarters in Washington, D.C. Approval or denial may take several months.

Approval by FHWA of the waiver is required **before** allowing foreign steel or iron that exceeds the minimum-use rule into the project. Lack of an FHWA-approved waiver can result in the loss of all federal funds for the project.

The contractor must submit the following information to the resident engineer when requesting a waiver to Buy America requirements:

- A detailed description of the waiver item

- Item cost—obtained from the manufacturer or supplier
- The country of origin for the product
- The reason for the waiver

The resident engineer must provide the following information when preparing a waiver request for the FHWA engineer:

- The contractor's waiver submission **and support information**
- Federal-aid project number, description, **project cost**, and location
- **Narrative of the efforts taken to locate a domestically manufactured product**
- Analysis of proposed redesigns using available domestic products

3-605 Brand or Trade Names and Substitutions

When specific brand or trade names are used to designate required products, the contractor may furnish other products that are of equal or better quality.

A product is not necessarily equivalent merely because it is on an Authorized Material List published by Caltrans. These lists indicate that the products meet the general qualifications. However, some of the listed products may not meet the specific needs of the project or may not be appropriate for a particular location because of factors such as climate conditions or maintenance difficulties. Consult with the responsible unit (the Design Unit, Traffic Unit, Maintenance Unit, or METS, for example) before making decisions about the acceptability of substitutes.

3-606 Buy Clean California Act

Section 6-1.06, "Buy Clean California Act," of the special provisions includes **both authorized material list and** environmental product declaration (EPD) requirements for eligible materials or products, including carbon steel rebar, structural steel, flat glass, and mineral wool board insulation.

Review applicability of these provisions based on project **cost, project duration, and use** quantities of the eligible materials **by source**. Projects or quantities not meeting the specified criteria are exempt from **Buy Clean California Act (BCCA)** requirements. Discuss project specific **BCCA** requirements at the preconstruction conference as applicable.

For **carbon steel rebar material subject to BCCA compliance, the source mill must be on the authorized material list for BCCA compliant mills. These mills have demonstrated compliance with the Department of General Services' maximum acceptable global warming potential limits. Review source mill information on Form CEM-3101, "Notice of Materials to be Used," for authorized material list compliance. Upon delivery of such materials to the project, review the certified mill test reports to verify the source mill is listed on the authorized material list. Carbon steel rebar material subject to BCCA compliance that is not from a source on the authorized material list may not be used.**

For structural steel subcategories, mineral wool board insulation, and flat glass materials subject to BCCA compliance, contractors must submit facility-specific material or product EPDs as an action submittal at least 15 days before installing the material or product. The EPD must show that the global-warming potential of the material or product is less than or equal to the maximum acceptable global-warming potential values published by the Department of General Services at:

<https://www.dgs.ca.gov/>

Subject materials with EPDs greater than their maximum acceptable value cannot be used on the project. If the contractor fails to provide an EPD for structural steel subcategories, mineral wool board insulation, or flat glass materials subject to BCCA compliance, installation may not proceed and no compensation can be made, including materials-on-hand payments, for these materials. Work with your METS representative in reviewing EPD action submittals. Upon delivery of such materials to the project, review the certified mill test reports to verify the source mill is consistent with the compliant facility-specific EPD.

EPD submittals are made by PDF copy to the resident engineer and through the Data Interchange for Materials Engineering site at:

<https://dime.dot.ca.gov/>

Contractors will need to register in advance to use the data interchange site.

EPDs are developed in conformance with program category rules established by program operators. Contractors are to use the product category rule in effect on the date of bid opening unless otherwise authorized. Only consider a more recently dated product category rule if requested by the contractor. If a product category rule for material or product has expired without replacement as of the bid opening date, no EPD is required for that material or product. METS maintains an up-to-date listing of product category rules, in addition to related Buy Clean California Act information at:

<https://dot.ca.gov/programs/engineering-services/environmental-product-declarations>

Regardless of the specified means of for BCCA compliance, either authorized material list or EPD action submittal, the contractor is required to report the represented quantity of BCCA compliant material for each shipment within 5 business days of receipt at the job site. This reporting is done through the Data Interchange for Materials Engineering site.

3-607 Quality Assurance

Quality assurance encompasses all materials and construction activities on a project and directly affects the service life of a transportation facility.

Section 6-2, "Quality Assurance," of the *Standard Specifications* includes provisions covering the contractor's quality control over the work and Caltrans' verification and acceptance of the work.

Section 6-2.02, "Quality Control," of the *Standard Specifications* informs the contractor of general quality control requirements regarding the materials

incorporated into the work. Verify that the contractor maintains a quality control program that includes employing appropriate personnel and keeping thorough quality control records.

Section 6-2.03, "Department Acceptance," of the *Standard Specifications* allows the resident engineer access to the material sources to inspect, sample, and test materials for Department acceptance. Refer to Section 3-501, "General," of this manual for information regarding safe access.

Resident engineers and their authorized representatives have a primary duty to inspect the work and to sample and test the materials incorporated into the work to verify compliance with the *Standard Specifications*, special provisions, and plans.

Deduct retesting costs. Contact the district materials engineer who oversees the district materials lab for guidance on determining the costs. For hot mix asphalt verification retesting, refer to Section 39-2.01A(4)(b), "Job Mix Formula Verification," of the *Standard Specifications*.

Additional information about quality assurance can be found in the Division of Construction publication *Construction Quality Assurance Program Manual* at:

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

3-608 Out-of-State Fabrication

Section 6-2.01E, "Material Source Inspection and Testing," of the *Standard Specifications* includes deductions in payment for fabrication at some distance from Sacramento and Los Angeles. In addition, some special provisions may modify the amount to be deducted. Deduct the appropriate amount, applying it as an administrative deduction on estimates that include payment for the item. Use a standard description of "Out of State Inspect" on Form CEM-6101, "Project Record—Estimate Request." This deduction should be made in whole, when appropriate. However, if the deduction is large, the resident engineer has the option to deduct incremental amounts until the full deduction is made.

3-609 Testing by Caltrans

In addition to the California Test methods, the *Standard Specifications* contain references to the standards and tests of the American Association of State Highway and Transportation Officials and the American Society for Testing and Materials.

California test methods are available at:

<https://dot.ca.gov/programs/engineering-services/>

American Association of State Highway and Transportation Officials, American Society for Testing and Materials, and other test methods are available by clicking on the Material Standards (ASTM/AASHTO) link to get to the IHS Markit database.

Whenever samples are taken from materials sites, the resident engineer must assure that the samples are representative of material being used. Degradation and segregation may occur in aggregates between the processing operation and their

incorporation in the work. The resident engineer cannot assume that material satisfactorily tested at the source or at the processing plant is still satisfactory at the job site. To assure specification compliance, confirm the contractor tests at the frequencies shown in the specifications as the material is being incorporated into the work. Also, perform and record acceptance sampling and testing as required by Section 6-1, "Sample Types and Frequencies," of this manual. Deliver acceptance samples to the district laboratory within 1 business day for projects within 50 miles and within 2 business days for projects more than 50 miles from the district laboratory, except where sampling or test methods conflict. Report acceptance test results to the contractor within 2 business days of receipt from the laboratory. The contractor must be advised that all test results are available for their inspection. Accordingly, test results must remain in the project files. Provide copies of acceptance tests to the contractor upon request.

3-609A Operating Range and Contract Compliance

Section 25, "Aggregate Subbases"; Section 26, "Aggregate Bases"; Section 27, "Cement Treated Bases"; Section 28, "Concrete Bases"; Section 37, "Bituminous Seals"; and Section 90, "Concrete," of the *Standard Specifications*, all contain provisions for an acceptable range of test results. If a test result fails to meet the requirements of the operating range but meets contract compliance, the contractor usually needs to make some change in operations to ensure that subsequent test results meet the operating range requirements. The resident engineer should document the contractor's actions and any off-site testing done before the next day's work.

If a test result fails to meet the specified value for contract compliance, the result should be treated just like any other failing test result. However, if the contractor writes a request, the resident engineer may consider leaving the material in place and applying the specified deduction, if the specifications allow. The contractor's written request, along with documentation of reasons for leaving the material in place and the contractor's actions, is sufficient for the contract records. A change order accepting out-of-specification material is not required in this case because the specifications provide the procedure for acceptance.

The resident engineer must inform the contractor promptly of test results that indicate unacceptable or borderline work.

3-610 Testing by the Contractor

The contractor must be satisfied at all times that the quality of materials entering the work and the work performed, regardless of who supplies the materials or performs the work, will meet the contract requirements. For acceptance of materials or work, resident engineers must not use as documentation any tests the contractor performs to control the work, except where verification testing is specified.

3-610A Action Limit and Suspension Limit

Action and suspension limits are similar to operating range and contract compliance except they apply to the contractor's quality control testing as specified in Section 40, "Concrete Pavement," and Section 41-9, "Individual Slab Replacement With Rapid Strength Concrete," of the *Standard Specifications*.

3-611 Suspected Fraudulent Test and Inspection Reports

When fraudulent tests or inspection reports are suspected, discuss the situation with the Division of Construction field coordinator. Contact the district materials engineer or METS for assistance in evaluating the reports. Retest the material represented by suspect tests, as appropriate. If after investigating, fraud is still suspected, the deputy district director provides the facts in writing to the Division of Construction field coordinator.

Section 8 Prosecution and Progress

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Section 8 Prosecution and Progress

3-801 Schedule

Two levels of critical path method (CPM) schedules are defined in Section 8-1.02, "Schedule," of the *Standard Specifications*. The applicable level is determined by whether or not a CPM schedule bid item is included in the contract's bid item list. Contracts not containing a CPM schedule bid item require level 1 CPM scheduling, while those containing a CPM schedule bid item require level 2 CPM scheduling.

The project delivery team, including Construction's representative, will assess the project's risk variables affecting contract time in order to determine whether the default level 1 CPM scheduling requirements will apply or if increased risk variables warrant inclusion of a CPM schedule bid item and corresponding level 2 CPM scheduling requirements. Related guidance for this determination will be part of updates to the *Construction Contract Development Guide*.

Level 2 CPM schedule requirements include a preconstruction scheduling conference shortly after contract approval. The contractor is to provide a time-scaled logic diagram in advance of this conference to identify major activities, sequence of planned operations, and any proposed changes to described staging. The purpose of this conference is to review and discuss this information in consideration of contract requirements, including work windows or other constraints. Note that the described staging in the contract may not be revised without an approved change order or an authorization to proceed issued in advance of the change order. This conference should assist both parties in developing, reviewing, and accepting the baseline schedule submittal that follows.

Make every effort to obtain a reasonable baseline schedule at the beginning of the contract. Record in a daily report any communication regarding the schedule. Level 2 CPM scheduling requires weekly meetings to resolve scheduling issues until the baseline schedule is accepted. These provisions also provide for use of a third-party facilitated meeting, if agreed to by both parties, to assist in resolving unresolved baseline schedule issues. Notify the contractor in advance if a performance failure withhold will be taken for failure to submit a satisfactory schedule.

In general, schedules should:

- Separate contract items into activities to show controlling activities as well as non-controlling activities.
- Be used by the resident engineer and the contractor to monitor and evaluate progress, determine controlling activities of work, and analyze time consequences from changes or work delays.
- Be consistent with all contract time requirements.

- Display internal milestones and other time constraints, such as placing traffic on detours or new pavement, and beginning new phases of the work in staged construction.

The contractor is required to submit **monthly update** schedules to evaluate alterations to the critical path or an adjustment to the completion date. **Hold monthly meetings to discuss the update schedule submittal, including narrative report, progress to date, changes in schedule, unresolved time issues and need for additional schedule changes.** For level 1 **CPM contracts**, the **updated** schedule may be used instead of a time impact analysis **to evaluate an authorized or anticipated change's effects to the critical path or work progress.** Also refer to the *Project Delivery Training Catalog* on Caltrans' Project Delivery training web page **for training courses on project scheduling.**

3-802 Preconstruction Conference

Schedule a preconstruction conference as soon as practical after a contractor has been selected for a project. Be prepared to discuss with the contractor the items in Section 8-1.03, "Preconstruction Conference," of the *Standard Specifications*.

Refer to Section 5-003, "Preconstruction Conference with the Contractor," of this manual for additional guidance. Review the job with Caltrans personnel before the start of job site activities, and refer to Section 5-002, "Preconstruction Conference with Caltrans Personnel," of this manual.

3-803 Start of Job Site Activities

This section covers the subject of when the contractor begins work. Do not confuse the beginning of work with the beginning of contract time, which is specified in Section 8-1.05, "Time," of the *Standard Specifications*, and the date used on Form CEM-2701, "Weekly Statement of Working Days." For additional information, refer to Section 3-804, "Time," of this manual.

Section 8-1.04, "Start of Job Site Activities," of the *Standard Specifications* requires the contractor to begin work on a project **without Stormwater Pollution Prevention Plan (SWPPP) requirements** within 15 calendar days after receiving notice of contract approval. **For projects requiring a SWPPP, the contractor is to begin work within 55 calendar days after receiving notice of contract approval.** The special provisions may modify these **standard start** requirements for some projects including:

- Delayed start
- **Early return-early start**
- **Next-day start**
- **Flexible start**
- Potential budget impasse start

The start of job site activities may not coincide with the first chargeable working day. The contractor is required to submit a 72-hour notice before the start of job site

activities. If the project has work at more than one location, require submittal of a separate notice for each location.

Determine when to record the beginning of job site activities based on judgment and experience. For example, setting up construction area signs might be the only work underway. If conversations with the contractor indicate movement toward pursuing the work, the setting up of signs is sufficient to indicate the beginning of job site activities. Record the date the contractor begins job site activities on Form CEM-2701, "Weekly Statement of Working Days," on the resident engineer's daily report, and on the original or supplemental Form CEM-6003, "Progress Pay—Estimate Project Initiation or Update." For more information, refer to Section 5-103B (3), "Completing Form CEM-6003, 'Progress Pay—Estimate Project Initiation or Update,'" of this manual.

Record the district's actions toward encouraging the contractor to begin work. Notes of discussions from the preconstruction conference or other conversations with the contractor provide the necessary records. If a contractor fails to begin work by the specified time, remind the contractor of this failure under "Remarks" on Form CEM-2701.

Send a separate letter with an additional reminder with notice that, according to Section 8-1.05, "Time," of the *Standard Specifications*, the contract time starts on the day specified in Section 8-1.04, "Start of Job Site Activities," of the *Standard Specifications* or on the day job site activities are started, whichever occurs first.

If you determine that the contractor's failure to begin work will result in unsatisfactory progress, discuss the situation with district management.

3-803A Work Before Contract Approval

After the contractor has executed and returned the contract to Caltrans, the contractor, after submitting the specified notice, may enter the site and begin job site activities.

When a contractor wants to start work before contract approval, call the Office Engineer, Construction Contract Awards, to determine whether Caltrans has received the executed contract documents. If the office has received the documents, proceed as set forth in Section 8-1.04. Executed contracts are listed at the Division of Engineering Services' intranet website.

If a contractor wants to begin work before contract documents have been delivered to Caltrans, the contractor must obtain an encroachment permit from the district. The permit must incorporate the same terms stated in Section 8-1.04, "Start of Job Site Activities," of the *Standard Specifications*, that apply after the contractor has returned the executed contract documents to Caltrans but before the time of the contract's approval. In addition, the permit must include the following:

- A statement that the contractor is responsible and liable for any personal injury or property damage resulting from the work.
- The requirements for cooperation contained in the special provisions and in Section 5-1.20, "Coordination with Other Entities," of the *Standard Specifications*.

The terms of the permit should include notice that the contractor may be working on the site concurrently with others performing utility relocation, right-of-way clearance work, or other construction activities and that the work of the others will take precedence over the contractor's job site activities. When conflicts are likely, a permit should not be issued.

- The limits of the area in which work will be performed.
- The activity or activities to be performed.
- A statement that the contractor will comply with the requirements of the contract plans, the *Standard Specifications*, the project's special provisions, and any order of work specified in these documents.
- A statement that the contractor's job site activities will not deprive property owners of access.
- A requirement to provide an adequate bond or cash deposit to cover the work contemplated before starting any work. The amount should be the same as for other types of work, as covered in the *Encroachment Permits* manual:
<https://dot.ca.gov/programs/traffic-operations/ep/ep-manual>
- A reference to the contract's water pollution control requirements.

When extra work must be a first order of work, it should be performed under a "prior authorization," as covered in Section 5-3, "Change Orders," of this manual. After the executed contract documents have been delivered as specified, change orders may be approved in accordance with Section 5-3. The district must not process requests for maintenance and protection relief or contract acceptance until after the contract's approval.

3-803B Delayed Start

This section applies when the standard 15-day or 55-day start has been modified to a delayed start. The special provisions will identify the delayed start timeframe.

Work should not be started at the job site until the resident engineer approves the submittals listed in the special provisions. Work may be started at the job site before the time specified in the delayed start if the submittals are approved and the resident engineer authorizes the start in writing. The beginning of work provision allows adequate time for contractors to prepare, and for the resident engineer to approve, specified submittals before job site activities begin. Review and approve satisfactory contractor submittals or return insufficient submittals within contractually required time frames.

3-803C Early Return-Early Start

Early return-early start is a beginning-of-work specification that shortens timeframes for providing notice before starting work and beginning-of-work timeframes. The project special provisions will provide these requirements if applicable.

3-803D Next-Day Start

Informal-bid contracts may be used after a catastrophic incident or after a notification of a threat of future significant damage. The special provisions for next-day projects require that the start of job site activities begin the next business day after contract approval.

3-803E Flexible Start

Flexible start is a beginning-of-work specification that allows a contractor to choose the first working day based on conditions defined by the district before advertising. This section applies if the standard start has been modified to a flexible start in the special provisions. Flexible-start provisions are generally used on highway maintenance or Minor A projects with 50 working days or fewer.

The contractor must submit a request for authorization to establish the first working day within 10 days after contract approval. If the contractor does not submit the request for authorization to begin work within 10 days after contract approval, the first working day will be 15 days after contract approval.

The special provisions for flexible-start projects will generally include a start-work-before date to avoid late starts in the performance of the work. Assure that any contractor requested beginning-of-work date does not extend beyond the specified start-work-before date.

3-803F Potential Budget Impasse Start

Minor A or highway maintenance program projects advertised before the fiscal year in which the project is budgeted may include additional contract language restricting the start-of-work date to begin after the State of California budget becomes law.

3-804 Time

Section 8-1.05, "Time," of the *Standard Specifications* discusses use of Form CEM-2701, "Weekly Statement of Working Days," as the method of tracking contract time. Issue this statement to the contractor weekly until the contract is accepted. To determine if progress of the work may require a withholding, refer to Section 3-906F (1), "Progress Withholds," of this manual and Section 9-1.16E(2), "Progress Withholds," of the *Standard Specifications*.

Section 1-1.07, "Definitions," of the *Standard Specifications*, defines the terms "day," "working day," and "controlling activity." Days during the contract are either a working day, a nonworking day or a liquidated damage day. However, the contract's special provisions may modify the definition of working days. Note that during suspensions, the corresponding days must be identified either as a working day or nonworking day with qualifications made in the remarks section. See Section 3-805, "Suspensions," of this manual for additional information on suspensions.

The total time allowed for completion of a contract is a specified number of working days. The "computed date for completion" of a contract is the date of the last working day, based on the number of working days specified in the original contract.

On most projects, situations arise that extend the date for completion beyond the **originally** “computed date for completion.” The “computed date for completion” will be extended by either charging a nonworking day or by writing a change order that adds working days to the contract.

Projects including a time-related overhead bid item will make corresponding item payments based on the number of working days assessed during the pay period as documented on the weekly statement of working days reports. See Section 3-905, “Time-Related Overhead,” of this manual for additional information concerning time-related overhead payments.

3-804A Weekly Statement of Working Days

Use Form CEM-2701, “Weekly Statement of Working Days,” to report the status of contract time to the contractor.

As soon as possible and no later than the end of the following week, forward the original statement to the contractor. Send one copy to the district Construction office for review, and file another copy with the project records. Form CEM-2701 consists of three sections.

3-804A (1) The Record Section (Upper Block)

This section is used to record all working days, nonworking days as defined in Section 1-1.07, “Definitions,” of the *Standard Specifications*, **liquidated damage days if applicable**; and working days on which no productive work was performed on the controlling activity. In this section, tabulate each elapsed working and nonworking day during the life of the project.

Each day, determine whether to charge a working day and, if necessary, discuss the decision with the contractor. The “current controlling activity” is the basis of this determination; therefore, the resident engineer must base the decision on conditions effective on the day under consideration. If the progress schedule does not accurately represent **the controlling activity or** conditions effective on that day, request that the contractor update the next progress schedule to provide an accurate representation. Note on Form CEM-2701 the activity that, in your opinion, is currently controlling. If the contractor does not concur, the entry will give the contractor an opportunity to **disagree by filing a request for information (RFI) in accordance with the time specified in the contract. Unresolved RFI issues will then follow the potential claims and dispute resolution requirements of the contract. If necessary, previously issued weekly statement of working days information may be revised by using the current weekly statement of working days report. Within the “Remarks” section of the form, clearly identify the previous report number and the associated days involved along with the revised determination. Include the effects of this revised determination throughout the current weekly statement of working days report. If the revised determination affects only the most recent weekly statement of working days reports, it may be clearer to reissue weekly statement of working days reports as revised to capture the change. In such cases be sure to clearly distinguish**

the revised weekly statement of working day reports in the report number field and “Remarks” sections of the revised reports.

If the controlling activity is not dependent upon weather, such as concrete curing or an embankment settlement period, a working day must be charged during adverse weather.

When determining nonworking days, loss of time because of adverse weather may extend beyond the period of actual adverse weather. Situations occur when there is no progress toward contract completion though the full crew might have worked the entire day. This may occur if the grade is too wet to work, access is limited to the work needing to be reestablished, or saturated material needs to be removed from the tops of slopes, for example.

Adverse weather can be other than wet or cold weather. For example, it may be too hot to produce concrete that meets specified temperatures. If all specified precautions have been complied with and the concrete work is the controlling activity, a weather nonworking day should be granted.

If a nonworking day is granted because of requirements in Section 12, “Temporary Traffic Control,” of the *Standard Specifications*, state the reason as “traffic restriction” in the “Remarks” section of Form CEM-2701.

In the column “Working Day No Work Done on Controlling Activity,” record any working day on which no work is done on the project or on the controlling activities. If the reasons are known for lack of work, note them in the “Remarks” section and on the daily report.

3-804A (2) Change Order Time Adjustments (Center Block)

This section is used for recording adjustments of time as a result of approved change orders. In the column under “Change Order Days Approved,” record working days granted for approved change orders during the week. In the column under “Change Order Number,” list the approved change order numbers corresponding to the working days granted during the week. In considering a time adjustment, deduct all nonworking days within the adjustment period, and make sure that the adjustment is made only for the working days charged to the contract during the adjustment period. For additional information on time adjustments after contract completion, refer to Section 3-807, “Liquidated Damages,” of this manual.

3-804A (3) Computation of Extended Date for Completion (Lower Block)

In the lower section of Form CEM-2701, “Weekly Statement of Working Days,” summarize the information the contractor will receive. The “contract time start” is the working day specified in Section 8-1.05, “Time,” of the *Standard Specifications*. For most contracts, this day is either the 15th or 55th day after receiving notice of contract approval for a non-SWPPP or a SWPPP contract, respectively. Review Section 8-1.04, “Start of Job Site Activities,” of the *Standard Specifications* and related special provisions of your contract to determine the time specified after contract approval notice. If the contractor starts job site activities before the time

specified after contract approval notice, the contract time start is the day the contractor starts job site activities.

Several methods are used to specify the contract time start. Read and understand the contract's specifications and correctly record the date of the contract time start.

Use the Construction Working Days Calendar to determine the correct values to place in the "Numbered Day" column on Form CEM-2701 for the contract time start, the computed date for completion, and the extended date for completion. Standard 5-day and 7-day calendars are available online:

<https://dot.ca.gov/programs/construction/contract-time>

The number shown on the working days calendar on a particular date is that date's numbered day.

Refer to Section 4-2002C (8), "Plant Establishment Work," of this manual for guidelines on plant establishment time requirements and computation of the extended date for completion.

3-804A (4) Final Weekly Statement of Working Days

Designate on the Form CEM-2701 that is used for the week when a contract is accepted as the "Final Weekly Statement of Working Days." Prepare this statement on the day the district accepts the contract and verify that the statement reflects the "approved status of time" on this date. For revising the status of time from that shown on the final Weekly Statement of Working Days, refer to Section 3-807, "Liquidated Damages," later in this section.

3-804A (5) Examples

Examples of typical entries for Form CEM-2701, "Weekly Statement of Working Days," are available at:

<https://dot.ca.gov/programs/construction/contract-time>

3-805 Suspensions

Temporary suspension of work is covered under Section 8-1.06, "Suspensions," of the *Standard Specifications* and gives the resident engineer the authority to suspend work. There are two general categories of suspensions.

First, in areas subject to adverse weather, it is permissible to suspend an entire project if this action is considered to be in the best interest of Caltrans. However, authority to suspend work is limited to the reasons stated in Section 8-1.06. Before ordering such a suspension, review the project with the Maintenance superintendent, discuss work that must be completed before Maintenance assumes interim responsibility, and provide written notification to Maintenance in advance of the suspension. When an entire project is suspended for reasons that do not fall under the scope of Section 8-1.06, the suspension must have the contractor's concurrence. Mutually agreed-upon suspensions are covered under Section 1-1.07 "Definitions," of the *Standard Specifications*.

Second, a suspension does not always affect the entire project; it might only affect some items. Usually a suspension is used when either the work or the public will be affected adversely by continued work activity. Although a temporary suspension is an option available only to the resident engineer, consider the contractor's opinion on such a suspension.

3-805A Suspensions Related to Contractor Performance

Any letter that orders such a suspension must include references to applicable sections of the specifications and, if possible, state the conditions under which work may be resumed. Such action is taken only after careful consideration of all aspects of the problem. **Working days continue to be assessed during suspensions related to contractor performance.**

3-805B Suspensions Unrelated to Contractor Performance

A suspension may result from any condition unfavorable for the prosecution of the work, including anticipated heavy traffic because of a holiday or a special event, or a winter suspension.

During any suspension, advise the contractor of the conditions under which maintenance will be performed. Preferably use the contractor to perform work necessary to provide for public convenience or public safety. If Caltrans must perform such work, the district will request a director's order, financed from the contract allotment, which allows the district to hire a contractor to perform the work at force account.

When the reason for a suspension no longer exists, or when favorable conditions for resuming work are expected, notify the contractor in writing. The letter must state the date when working days will resume and must allow sufficient time to permit the contractor to remobilize the necessary labor and equipment. A period of 10 working days is generally considered reasonable.

When an ordered suspension occurs without mutual agreement, the contractor may be due additional compensation, contract time, both, or neither, depending on whether the delay is a critical delay, excusable delay, or concurrent delay.

Mutually agreed suspensions that affect the controlling operation are recorded as nonworking days in accordance with Section 1-1.07, "Definitions," of the *Standard Specifications*.

3-805C Suspensions Because of Wildfire Smoke

If the contractor requests suspension of work because of an unhealthy Air Quality Index or unavailability of crews or materials in the event of wildfire, grant **nonworking** days on which the contractor could not perform work on the controlling activity for at least 50 percent of the scheduled work shift with at least 50 percent of the scheduled labor and equipment. An unanticipated fire event, including poor air quality, not caused by either contractual party may result in nonworking days in accordance with Section 1-1.07B, "Glossary," of the *Standard Specifications*. Record nonworking days for suspended work that is on the critical path, **because of wildfire smoke.**

3-806 Delays

3-806A Time or Payment Adjustments and Nonworking Days

Section 8-1.07, “Delays,” of the *Standard Specifications* covers provisions for delay-related time or payment adjustments. Section 1-1.07, “Definitions,” of the *Standard Specifications* covers nonworking day provisions for concurrent delays under the “Working Day” definition. No time or payment adjustment is allowed for concurrent delays.

The resident engineer must monitor issues that may affect progress of the work and may result in an excusable delay or critical delay. To avoid or mitigate the effects of delays, initiate action such as the following:

- Initiate requests to the district utility coordinator to modify agreements that would allow the contractor’s forces to perform work under change order. Section 5-1.36C, “Nonhighway Facilities,” of the *Standard Specifications* covers such work by the contractor.
- Initiate any changes in the **work sequencing** that would eliminate or mitigate an excusable delay or critical delay, provided that any cost involved would not exceed the estimated cost resulting from a delay.

If an excusable delay or critical delay occurs, take the following actions:

- Determine the length of the delay.
- Make a list of the equipment that will be affected by the delay. Attempt to get agreement from the contractor regarding the list’s accuracy.
- Estimate the cost of the delay using the method specified in Section 8-1.07C, “Payment Adjustments,” of the *Standard Specifications*.
- Estimate the cost of removing the affected equipment from the project and returning it when the delay is over.
- Compare the costs **to remove the equipment or leave it on the job site**, and choose the most cost-effective option. If the contractor removes the equipment, but the cost for doing so is higher than leaving the equipment on the project, pay only the delay cost for idle equipment.
- If the contractor does not remove the equipment, attempt to determine how the contractor intended to use the delayed equipment. Review the progress schedule to determine if the contractor intended to use the delayed equipment full time or if the contractor intended some idle time. Use this estimate of time when determining delay costs.

Consider contractors’ claims for additional costs because of an excusable delay if the contractor has followed Section 5-1.42, “Request for Information,” of the *Standard Specifications* and it supports their assertion for additional costs based on the difference between the cost to perform the work as planned and the cost to perform the changed work as determined under Section 9-1.04, “Force Account,” of

the *Standard Specifications*. Only the work portion that was affected may be eligible for such adjustment.

3-806B Material Shortage

Material shortage is defined in Section 1-1.07, “Definitions,” of the *Standard Specifications*. Do not make a time adjustment for a material shortage. Days during a material shortage are considered nonworking days. Before a determination of nonworking days can be made, several conditions must be satisfied:

- An **RFI** for the delay exists.
- The contractor’s **RFI** must be received no later than 15 days after the material shortage first caused the work delay.
- The delay must affect the controlling activity.
- If the delay does not affect the controlling activity, advise the contractor accordingly in writing. If the contractor asks to be allowed to substitute the unavailable material with available material, the resident engineer must seek assistance from those responsible for the design. Change orders are to be processed as contractor-requested changes.
- The materials, articles, parts, or equipment are standard items.

Standard items are produced to meet the specifications of such industrywide organizations as the American Association of State Highway and Transportation Officials, the American Society for Testing and Materials International, the American Wood Protection Association, the American Institute of Steel Construction, and the U.S. Department of Agriculture (USDA). The fact that Caltrans specifications refer to these standards does not alter the item’s status.

Standard items include those that are listed in a catalog and are available for immediate delivery, and items that are normally available for purchase at supply houses. Items that are manufactured only upon order are not standard items, even if included in a catalog.

Examples of materials that are usually considered standard items:

1. Commercial fertilizer (industry specification)
2. Soil amendment (industry specification)
3. Iron sulfate (USDA)
4. Straw (USDA)
5. Seed (USDA)
6. Lumber (industry specification)
7. Plants (USDA)
8. Pipes and conduit, except cast-in-place (industry specification)
9. Backflow preventers (industry specification or catalog item)
10. Lime (industry specification or shelf item)

11. Asphalt (industry specification or shelf item)
12. Timber piles (industry specification)
13. Steel plates or shapes shown in the American Institute of Steel Construction handbook (shelf item)
14. Prestressing steel (industry specification)
15. Expansion joint materials (industry specification)
16. Elastomeric bearing pads (industry specification)
17. Steel bars for reinforcement—the material, not the bending and cutting (shelf or catalog item)
18. Bolts (industry specification)
19. Pumping plant equipment, components only (catalog items)
20. Miscellaneous metal, material, not fabrication (industry specification)
21. Fence posts, wire, fabric, hardware (industry specification)
22. Guide marker posts, plates, reflectors, hardware (industry specification)
23. Metal beam guard railing (industry specification)
24. Metal beam barrier (industry specification)
25. Type 1 lighting standards (industry specification)
26. Electrical conductors (industry specification)
27. Controller components (industry-wide catalogs)
28. Traffic signals and fittings (proprietary item)
29. Lamps for luminaires (proprietary item)
30. Ballasts (proprietary item)
31. Cement (industry specification or shelf item)
32. Pavement markers (proprietary item)

Items not on the previous list and that are produced to meet the requirements of Caltrans plans and specifications are not standard items. The following are examples of nonstandard items:

1. Processed structure backfill material
2. Pervious backfill material
3. Aggregates for bases and subbases
4. Aggregates for cement-treated base, hot mix asphalt, concrete, rock slope protection, and screenings
5. Wood chips
6. Concrete
7. Traffic signal and lighting standards, except Type 1

8. Controller assembly
9. All material manufactured to meet a state specification such as curing compound, paint, or epoxy
10. Concrete piling

The listed nonstandard items listed may contain components that are in short supply. They may then be eligible for consideration in a material shortage situation if the component is a standard item.

- If a “physical shortage” exists.

The term “physical shortage” means that the standard item or component of a standard item is not available at the time it is required for work on a controlling activity. However, do not consider a time adjustment if the “physical shortage” results from any of the following:

1. Untimely ordering of material
2. Failure to make a requested down payment
3. Lack of credit

Presume that a contractor, when submitting a bid, thoroughly considers all aspects of procuring materials and bids accordingly. This thorough consideration can include timely delivery commitments, price, and responsibility for meeting specifications.

Whenever it has been determined that an industry-wide shortage exists, the Division of Construction will advise all districts.

A “physical shortage” will not be considered to exist if either the contractor or a subcontractor has failed to perform any required fabrication or processing.

- Whether the contractor diligently tried to obtain the material.

Require the contractor to furnish proof of dates that material was ordered and confirmed. The orders must have been placed sufficiently in advance of the desired delivery to cover a normal lapse time in the particular industry. However, you cannot expect the contractor to have placed orders before contract approval.

If the contractor’s order was timely, request proof of efforts to obtain material from alternate sources that normally supply such materials to projects in the area. Alternate sources include, when possible, production of an item using the contractor’s own forces.

If written proof is unavailable from an alternate source, the resident engineer may accept a verbal confirmation from a supplier. Record such confirmation in the daily report. When no alternate source exists or when procurement from an alternate source may delay delivery even longer than procurement from the original source, also record confirmation of this situation.

3-807 Liquidated Damages

Section 8-1.10A, "General," of the *Standard Specifications* lists the daily rate to be charged for damages related to a contract time overrun.

3-807A Failure to Complete Work Parts Within Specified Times

If the "Extended Date for Completion" on the final "Weekly Statement of Working Days" contains a date before the date of the contract's completion, an apparent overrun has occurred. Proceed as follows:

3-807A (1) Case 1

The district intends to assess liquidated damages for the overrun shown on the final "Weekly Statement of Working Days." Enter the deduction for liquidated damages into the project records and proceed with the proposed final estimate.

3-807A (2) Case 2

The district intends to change the status of time from that shown on the final "Weekly Statement of Working Days" by time due on change orders. Time adjustments resulting from change orders should have been resolved before the contract's acceptance in accordance with Section 5-3, "Change Orders," of this manual. When extenuating circumstances result in unresolved time for change orders after completion, complete all deferred-time change orders, enter the data into the project records, enter any remaining deductions for liquidated damages into the records, and proceed with the proposed final estimate.

3-807A (3) Case 3

The district intends to change the status of time from that shown on the final "Weekly Statement of Working Days" by changing working days to nonworking days. Obtain concurrence for making such changes from the Division of Construction. Report the recommended disposition of each item of unresolved time so no further explanation is needed. Upon receipt of the recommendations, the division will advise the district of what action to take.

Include a status of contract time in a form similar to the following:

Contract Milestone	Date	Working Days or Numbered Day
Date attorney general approved contract	3/06/2012	744
First working day	3/21/2012	755
Working days specified in contract		40
Computed date for completion	5/15/2012	794
Total change order time adjustments, final Form CEM-2701		5
Nonworking days, final Form CEM-2701		75

Contract Milestone	Date	Working Days or Numbered Day
Additional change order days (if applicable)		14
Additional working days recommended (if applicable)		10
Extended date for completion	10/12/2012	898
Date contract completed	10/12/2012	898
Remaining overrun		0

After the disposition of overruns has been determined, the district will advise the contractor directly. Place copies of all memorandums in the project files as the record of final disposition of overruns. For any unresolved overrun in time, show a deduction to assess liquidated damages on the proposed final estimate. If the contractor objects to this assessment, follow the claim procedures outlined in Section 5-4, "Disputes," of this manual.

3-807A (4) Case 4

When the final quantities of individual contract items have exceeded 125 percent of the engineer's estimate, not as a result of ordered changes, the district may recommend the director's approval of a commensurate time extension. Such a recommendation is subject to all of the following provisions:

- Time is allowable only to the extent that each item was considered controlling.
- Any time extension is applicable only to the excess above 125 percent of the engineer's estimate.
- The maximum allowable time extension for each item cannot exceed the amount of time determined by applying normal production rates to the increased quantity of the item involved.

3-808 Contractor's Control Termination

Section 8-1.13, "Contractor's Control Termination," of the *Standard Specifications* explains the contractual requirements for terminating the contractor's control of the work. Sections 10253 through 10260 of the Public Contract Code cover defaulted contracts.

Termination of control may occur only when a contractor fails to supply an adequate work force, fails to supply material of proper quality, fails to make proper and timely payments to subcontractors, or fails in any other respect to perform the work with the diligence and force specified by the contract. Normally, when Caltrans terminates the contractor's control, the surety (bonding company) assumes responsibility for completing the contract. The following are guidelines for determining if the contractor may be failing to supply an adequate workforce:

- If the “percent completed” of the contract is more than 25 percent behind the “percent time elapsed.” These percentages can be found in the project status report.
- Complete cessation of the work.
- The work has not started within a period equal to 10 percent of the original working days or 50 working days, whichever is less.

If the resident engineer suspects termination of control may be necessary, the resident engineer must immediately notify the construction engineer and construction manager.

With agreement from the construction engineer, the Division of Construction field coordinator, and the structure construction engineer, if applicable, the resident engineer sends a letter to the contractor that describes the defaults to be remedied. The letter also specifies the amount of time allowed to remedy the defaults and states that, in accordance with Section 8-1.13, “Contractor’s Control Termination,” of the *Standard Specifications*, Caltrans will start the termination of control process if the defaults are not remedied. A copy of this letter is sent to the contractor’s surety. Typically, Caltrans allows 5 business days to remedy either failure to supply an adequate work force or failure to supply proper quality material. Generally, 15 days are allowed to remedy failure to pay subcontractors.

If the contractor fails to promptly remedy the defaults outlined in the resident engineer’s letter, the district Construction deputy director will send a request to the Division of Construction chief to start the termination of control process. The request must include:

- The defaults to be remedied
- Current status of the contract, including dates the contractor last performed work
- Any other information considered pertinent

To determine what action is necessary, the Division of Construction chief may call a conference with the contractor’s representatives, its surety, the Division of Construction field coordinator, and the district. If terminating the contractor’s control is necessary, the Division of Construction chief will send a letter to the contractor, with a copy to the surety, giving the contractor 5 business days to remedy the defaults or Caltrans will terminate the contractor’s control of the work. The contractor and surety will be responsible for any costs Caltrans incurs to complete the work.

If available, the contractor must be personally served with the 5-day notice letter. If both the contractor and its representative are unavailable and their addresses are known, send the letter by registered mail. If both the contractor and its representative cannot be located and their addresses are unknown, post the 5-day notice letter in the most conspicuous place within the project limits. If the contractor does not remedy the defaults within the time required, the Division of Construction chief will send a letter to the contractor stating that the contractor’s control of the work has been terminated. The Division of Construction field coordinator will notify

the district of the effective starting date of the notice and will transmit any further instructions deemed necessary.

All 5-day notices and termination of control letters must include the following language:

“Your default may result in a review of your responsibility to perform future work with Caltrans.”

Once the contractor’s control has been terminated, the Division of Construction field coordinator will notify the arbitration engineer in the Division of Construction by forwarding a copy of the termination letter. The arbitration engineer will update and maintain the termination database.

The district will maintain a file that can be used as evidence to defend the termination or in a future responsibility hearing for the terminated contractor. The file should remain in the district for a minimum of three years.

The Division of Construction chief will send a letter to the surety requesting **that** the surety fulfill its obligations under the bond to complete the work with other forces. Because it is typically preferred that the surety proceed with the contractual work, the resident engineer should assist the surety in its efforts to complete the work. The resident engineer will determine and resolve with the surety the precise quantities and costs necessary to complete the work.

For additional information, contact your field coordinator.

The following two sections describe the process to complete the contract after the contractor’s control has been terminated.

3-808A Work Completed by the Surety

As requested by the surety, the Division of Construction field coordinator, with the assistance of the district, negotiates a takeover agreement or a tender-and-release agreement with the surety. A takeover agreement is an agreement between Caltrans and the surety outlining terms and conditions for the remaining contract work to be performed by the surety or a contractor hired by the surety. The surety is not released from contract responsibility until the contract is accepted. A tender-and-release agreement is an agreement between Caltrans and the surety outlining the terms and conditions for the remaining work to be performed by a contractor recommended by the surety. The recommended contractor agrees to do the remaining work and provides new bonds, and the surety pays the additional contract costs. The surety is then released from any further contractual responsibility.

Once the Division of Construction field coordinator has negotiated an agreement with the surety, the coordinator sends a draft copy of the appropriate agreement to the surety and requests that the surety make project-specific revisions as needed. The Division of Construction field coordinator will review the agreement and forward it to the Legal Division. Both the Division of Construction field coordinator and the Legal Division recommend approval. The Division of Construction chief approves either agreement.

In the interim between the termination of the contractor's control of the work and completion by other forces, the district must take all necessary steps to preserve any completed work. The district may use a separate work order for interim maintenance work by "day labor." Day labor may be obtained by entering into a service contract with another contractor to perform the contract work. To use day labor, a director's order is necessary.

3-808B Work Not Completed by the Surety

If time or circumstance does not permit the surety to complete the work, Caltrans may elect to complete the work with its own forces. If the surety elects not to complete the contract after termination of the contractor's control over the work, the district may complete the work by day labor or by informal contract. The district will determine the amount of completed work, the amount of work remaining to be performed, materials on hand, and extra work authorized. In the interim between the termination of the contractor's control of the work and completion by other forces, the district must take all necessary steps to preserve any completed work. The district may use a separate work order for interim maintenance work by day labor.

An informal contract permits a short advertising period. If the work will be completed by informal contract, the resident engineer, with the assistance of the district office engineer, will put together plans and specifications to complete the work, select three to five bidders, and take informal bids for the work. The informal bids must be sent to the contractor and the surety 3 days before the informal contract proceeds. In some cases, additional funds will be needed to complete the work. The resident engineer must request that the surety provide these funds although, under the Public Contract Code, the surety is allowed to wait until completion of the work to make payment. If the surety does not immediately provide these funds, the resident engineer may use available contingency funds or submit a supplemental funds request, if needed.

If either the surety asks Caltrans to complete the work or Caltrans elects to complete the work, the surety and the original contractor are liable to the state for the costs to Caltrans resulting from the original contractor's failure to complete the work. These costs include:

- The sum paid to the completion contractor to complete the various items to the extent it exceeds the sum that would have been payable to the original contractor.
- The sum of all costs to protect the work during the period between the original contractor leaving and the completion contractor arriving (usually day labor costs).
- The sum of all costs related to corrective change order work required to bring the original contractor's work into contract compliance and Caltrans' engineering costs to develop a completion contract and administer it. If appropriate, liquidated damages may be used to estimate these costs.

During completion of the work, the resident engineer must maintain current contract records to expedite billing. The project files must show the following:

- Segregated quantities of work performed under the original contract and under the day labor or informal contract for completion
- Overruns and underruns greater than 25 percent requiring adjustment
- Change orders
- All other pertinent information

When the surety does not complete the work, the resident engineer must prepare a bill for the original contractor and surety and break down the billing into the following five sections.

3-808B (1) Section 1

Subsection A—This subsection lists the amount Caltrans paid for the entire contract item work. This amount would be equal to the sum of the amount paid to the original contractor for item work before the termination plus the amount paid to the completion contractor to complete the item work.

Subsection B—This subsection shows the amount that would have been paid for the item work assuming the original contractor had not defaulted on the contract.

Subsection C—This subsection lists the amount billable to the original contractor or surety under Section 1 of the billing. This amount would be the difference between Subsection A and Subsection B. If Subsection A is less than Subsection B, the original contractor must not be credited with this amount; instead, a zero balance will apply.

3-808B (2) Section 2

This section lists the costs Caltrans incurred to maintain the contract during the period between the original contractor's departure and the arrival of the completion contractor. These costs are usually day labor costs but may include costs incurred by the Caltrans maintenance forces.

3-808B (3) Section 3

This section lists the change orders and related costs to correct any defects left in the original work by the original contractor.

3-808B (4) Section 4

This section lists the engineering costs Caltrans incurred to develop, implement, and administer the completion contract. Separate the administrative costs from the development and implementation costs. Compare the total administrative engineering costs with the liquidated damages costs incurred in the original contract, assuming the original contract was not complete until the completion contractor finished its contract.

3-808B (5) Section 5

This section shows the amounts determined in Sections 1, 2, 3, and 4, and adds them together. List the penal sum of the bond, along with the bond number. The penal sum of a performance bond limits the responsibility of the surety. The original contractor may be billed for the full cost of completion even when that cost exceeds the penal sum of the bond.

3-808C Billing

The resident engineer sends the detailed billing, as described above, to the Division of Accounting abatements section, with instructions to prepare the accounts receivable bill and to mail it to the contractor. If the contractor is not available, the resident engineer should mail it to the surety. After payment is received, the abatements section will credit the payment to a specific expenditure authorization.

If payment is not received within 45 calendar days, the abatements section will inform the district Construction deputy director that payment has not been received. Representatives of district Construction, the Division of Construction, and the Legal Division will meet to discuss alternate courses of action and choose the appropriate one. The abatements section must not submit the billing to a collection agency unless the meeting participants have agreed to this action.

Keep backup documents in the project files and make them available to the surety upon request. To safeguard special handling of defaulted contracts, identify all related internal correspondence with the words “Defaulted Contract” under the job’s file reference.

3-809 Contract Termination

Section 8-1.14, “Contract Termination,” of the *Standard Specifications* specifies the contractual requirements for termination when the district director determines and the deputy director of Project Delivery approves that it is not in the best interest of Caltrans to continue with the project.

When the majority of the contract work has been completed, it is preferred to delete the remaining work by change order, accept the contract, and provide additional payment to the contractor, if necessary, in accordance with Section 9-1.17C, “Proposed Final Estimate,” of the *Standard Specifications*.

Termination of contracts is rare. The Division of Construction must make sure that all necessary steps are taken in handling contracts terminated for the best interests of Caltrans. To assure special handling of these types of terminated contracts, identify all internal correspondence related to them with the words “Convenience Termination” under the job’s file reference.

To initiate contract termination, the district director must write a letter to the Division of Construction chief stating the reasons for requesting the termination. The letter should include:

- Reasons for the termination

- Work performed
- Work yet to be performed
- Any information pertaining to the advertisement date of the new contract

If the Division Construction chief concurs, the chief will recommend termination of the contract to the deputy director of Project Delivery using the district's letter as justification. If appropriate, the deputy director of Project Delivery approves the termination.

For additional information, refer to the example letter on intranet site for the field coordinators of the Division of Construction.

Upon approval, the Division of Construction chief will issue a letter to the contractor, signed by the deputy director of Project Delivery, notifying the contractor that Caltrans will terminate the contract as soon as any work the resident engineer requested is complete. When all work is complete, the district must accept the project.

The contractor will be paid all reasonable costs as computed in accordance with Section 8-1.14, "Contract Termination," of the *Standard Specifications*. An audit of the contractor's cost records is **generally** required to resolve compensation issues. After contract acceptance, payments can be made in accordance with Section 9-1.17D, "Final Payment and Claims," of the *Standard Specifications*.

For additional information, contact the appropriate coordinator.

3-809A Federal-Aid Contracts on the National Highway System

For federal-aid contracts, the resident engineer or construction engineer must contact the Division of Construction field coordinator to obtain concurrence from the Federal Highway Administration's engineer on the termination of a contract. Refer to the Code of Federal Regulations, Title 23, Section 635.125 (23 CFR 635.125), "Termination of Contract."