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Division of the State Architect (DSA) documents referenced within this publication are available on the <u>DSA Forms</u> or <u>DSA Publications</u> webpages.

Purpose: This Interpretation of Regulations (IR) provides clarification of specific Code requirements related to the duties of project inspectors and assistant inspectors.

Background: There are three types of inspectors who may perform code-required inspections on DSA projects:

- Project Inspector is responsible for ensuring that all code-prescribed inspections and administrative duties are completed, including supervision of assistant inspectors and monitoring of special inspectors. The DSA certified Class 1 project inspector may utilize one or more assistant inspectors to assist in performing inspection and administrative duties on a project.
- **Assistant Inspector** may be required to assist a DSA certified Class 1 project inspector by providing inspection and administrative assistance to the project inspector on a project. An assistant inspector must be qualified by obtaining DSA certification as a project inspector. Qualified assistants must be approved by DSA for each project as explained in *IR A-12: Assistant Inspector Approval: 2016, 2013, 2010 and 2007 CAC.*
- Special Inspector a specially qualified person utilized, where required by code, to
 inspect specific aspects of the work, such as structural steel welding or masonry
 construction. A special inspector may be hired by the laboratory of record or through an
 independent contract with the school district or owner. Refer to IR 17-4: Basics of
 Structural Tests and Special Inspections and IR 17-6: Structural Special Inspector Duties
 and Responsibilities for additional information.
- 1. REQUIRED DUTIES OF THE PROJECT INSPECTOR: The project inspector must perform specific duties in accordance with California Administrative Code (CAC), Title 24, Part 1 (Sections 4-211, 4-219, 4-333 and 4-342). The project inspector acts under the direction of the design professional in general responsible charge and is subject to supervision by DSA. The project inspector does not have the authority, under Title 24, to direct the contractor in the execution of the work or to stop the work of construction.

The project inspector's responsibilities include:

- A thorough understanding of all requirements of the construction documents.
- Inspection of all portions of the construction for compliance with the requirements of the DSA approved construction documents.
- Identification, documentation, and reporting of deviations using form DSA 154: Notice of Deviations / Resolution of Deviations in the construction from the requirements of the DSA approved construction documents.
 (Refer to DSA Procedure PR 13-01: Construction Oversight Process for additional information.)

Submittal of interim and final verified reports (forms DSA 152: Project Inspector Card and DSA 6-PI: Project Inspector Verified Report, respectively; DSA 152-IPI: In-Plant Inspector Inspection Card / Verified Report for in-plant inspector) per PR 13-01. At the conclusion of the project any outstanding deviations must be noted on the form DSA 6-PI or, for the in-plant inspector, In-Plant Inspector Inspection Card/Verified Report (form DSA 152-IPI).

Lack of compliance with the duties described above, the next section below, or detailed in PR 13-01 may result in a non-compliance recording on the Project Inspector Performance Review (form DSA 119: Project Inspector Verified Report.) The project inspector is prohibited from performing functions associated with actual construction work such as the following:

- Performing construction work.
- · Ordering or purchasing materials.
- Directing the work of the contractor, subcontractor(s), volunteer labor, or any entity performing construction work.
- Coordinating or scheduling the construction work.
- Performing "quality control" of construction. Quality control is the responsibility of the contractor. Quality assurance is the responsibility of the inspector.

The project inspector may perform duties for the school district or owner that are not codeprescribed as long as such duties do not interfere with inspection duties. It is the inspector's responsibility to report all ancillary duties to DSA, the design professional in general responsible charge, and the structural engineer. The inspector shall also report unforeseen time demands that are impacting, or will impact, his or her ability to perform code-prescribed duties.

DSA may approve a project inspector when, in the opinion of DSA, these ancillary duties would not create a conflict of interest. DSA may withhold approval of a project inspector or withdraw approval at any time if the appearance of a conflict of interest arises.

- SEVEN CATEGORIES OF CODE-PRESCRIBED DUTIES OF THE PROJECT 2. **INSPECTOR:** The code-prescribed duties of the project inspector have been organized into the following seven categories.
- 2.1 CATEGORY 1 - Inspector's Job File: The inspector must maintain the following records at the job site during construction in an organized, readily accessible manner:
 - 1. DSA approved (stamped and initialed) plans and specifications (printed copy).
 - 2. DSA approved testing and inspection list (form DSA 103: List of Required Structural Tests and Special Inspections). The DSA 103 may be incorporated into drawings or specifications (printed copy).
 - 3. DSA approved deferred submittals as required by DSA approved plans (printed copy).
 - 4. DSA approved project addenda and revisions (printed copies) with identification marks made on the original DSA approved construction documents indicating changes made by these documents.
 - 5. DSA approved construction change documents Category A with a log of all construction changes and identification marks made on the original DSA approved construction documents indicating changes made by these documents.
 - 6. Project Inspection Card (form DSA 152) and, when applicable, form DSA 152-IPI.

- Copies of contractor submittals (construction schedules, shop drawings, certificates, product labels, concrete trip tickets, etc.) accepted by applicable design professionals.
- 8. Communication log referencing all significant project construction related communications, such as contractor's requests for information (RFI), responses to RFIs, DSA communications (field trip notes, etc.), architect's supplemental instructions, information bulletins, and project related meeting minutes and/or notes.
- Deviation notices using form DSA 154 with a log (summary record) indicating resolution status for each deviation. Notice of resolution of deviations using form DSA 154.
- 10. Records of concrete placing operations.
- 11. Evidence of continuous inspection, such as daily inspection reports.
- 12. Both structural/materials and fire/life safety testing reports as well as special inspection reports.
- 13. Identification of responsible groups/individuals, including the project inspector, for both structural/material and fire/life safety related tests and special inspections.
- 14. Completed semi-monthly reports (form *DSA 155: Project Inspector Semi-Monthly Report and Instructions*).
- 15. Verified reports from all parties required to file verified reports.
- 16. DSA field trip notes (form *DSA 135: Field Trip Note* or comparable) from prior visits and attachments indicating resolution of each field trip note item requiring action.
- 17. California Building Standards Codes (Title 24) applicable to the project, such as the following: Part 1 CAC; Part 2, Volumes 1 and 2 CBC; Part 3 California Electrical Code (CEC); Part 4 California Mechanical Code (CMC); Part 5 California Plumbing Code (CPC); Part 6 California Energy Code. The code edition must be as referenced on the DSA approved plans and specifications. The project inspector should have access to applicable structural referenced standards as needed for particular project inspection activity.
- 18. Any other documents required to provide a complete record of construction.

The job file records listed above may be maintained in paper (i.e., hard copy) and/or electronic format, unless otherwise specified above. If any records are maintained electronically, full viewing access shall be given to the school district, DSA personnel and others needing access. The Project Inspector Performance Review (form DSA 119) provides guidance for required recordkeeping and duties. It may be used by the DSA field engineer, per Section 3.1 of this IR. At the completion of the project, the project inspector shall transfer the job file, with the exception of building codes and reference standards, to the school district, which shall maintain the job file as part of the permanent school district records. If the project inspector is, for any reason, terminated prior to the completion of the project, they shall ensure transfer of the job file. This occurrence requires the project inspector to personally provide a copy of the entire job file (with the exception of building codes and standards) to the assuming project inspector and to the school district. A copy of the entire job file shall be made available to DSA upon request (refer to PR 13-01 for additional information).

2.2 CATEGORY 2 - Inspector's Comprehension of the Construction Documents: The project inspector must study and fully comprehend the requirements of the construction documents in order to provide competent inspection of the work. It is necessary for the inspector to possess a thorough understanding of the requirements of the plans and specifications *before* that portion of the work is performed.

The inspector must:

- Consult the responsible design professional(s) to resolve any uncertainties in the inspector's comprehension of or seeming errors in the approved construction documents prior to construction of that portion of the work.
- Review requirements for each phase of the construction with the contractor prior to commencing that phase of the work. Good communications will prevent construction errors from occurring.
- Readily identify noncompliant work as the construction progresses to facilitate prompt corrective action.
- Verify code compliant implementation of both the structural/materials and fire/life safety testing as well as the special inspection program.

CAC, Title 24, Part 1, Section 4-343, specifies that the contractor must direct inquiries regarding document interpretation (including Requests for Information (RFI)) to the design professional in general responsible charge, through the inspector. This code provision requires the contractor to involve the inspector in the interpretation and clarification of the construction documents.

2.3 CATEGORY 3 - Continuous Inspection of the Work: Continuous inspection means complete and timely inspection of every part of the work, including any and all work beyond the inspected structural, fire/life safety or accessibility portions of the work, such as mechanical, electrical, plumbing, etc. Title 24, Part 1 requires prompt inspection of all the work as it progresses. Title 24, Part 1 also requires that prompt verbal notification be made to the contractor of any deviation so that the deviation can be immediately corrected. Use DSA 154 to report structural, fire/life safety or accessibility deviations that do not receive immediate corrective action. Use DSA 155, Section B on page 2, to report deviations affecting other work.

Work such as concrete work or masonry work, which can be inspected only as it is placed, requires the constant presence of the inspector. Certain types of work which can be completely inspected after the work is installed may be carried out while the inspector is not present, provided that the inspector promptly identifies and reports all deviations.

The project inspector must have personal knowledge of the construction obtained through the project inspector's own physical inspection of the work in all stages of its progress. When special inspectors or approved assistant inspectors are used on a project, the project inspector's personal knowledge may include that knowledge obtained from these individuals. The project inspector must keep a log of time spent on site and report any unforeseen time demands that are impacting or will impact his or her ability to perform code-prescribed duties.

2.4 CATEGORY 4 - Records of Inspections: The inspector must maintain detailed records of all inspections. The inspector's records must provide comprehensive and timely documentation of the inspected work, promptly identifying all compliant and noncompliant construction. These records must be readily accessible and maintained in an organized manner as described in Section 2.1. The following are the inspection records that must be maintained at the job site:

- A systematic record of all materials and assemblies accepted by the applicable design professional (when applicable) and delivered to the project site.
- A systematic record of the inspection of all work required by the approved construction documents, including any modifications to the originally approved documents, such as approved addenda, revisions, or construction change documents. Marking properly completed work on a set of construction documents is a recommended method of verifying that the requirements of the plans and specifications have been met. The inspector must also record the resolution of reported deviations on form DSA 154.
- Construction procedure records per CAC, Title 24, Part 1, Section 4-342, including but not limited to, concrete placement operations and other records specified on the approved construction documents.
- Log of project inspector's and assistant inspector's time spent on site. DSA may require verification from the inspector of time spent at the job site during all phases of the work. The project inspector's maximum cumulative total number of hours permitted on one or more simultaneous projects must not exceed approximately 60 hours per week without justification and notification to districts in which all simultaneous projects occur. Refer to IR A-7: Inspector Certification and Approval for additional information.
- 2.5 CATEGORY 5 - Communications Required of the Inspector: The inspector must, during the course of construction, provide specific code-prescribed notices and reports to the responsible design professional(s), DSA, the school district, and the contractor. The inspector must maintain records of all communications. These records must be readily accessible (as noted in Section 2.1) and maintained in an organized manner. The date and recipients of all communications must be clearly indicated.

The inspector is required to provide the following communications during the course of a construction project:

2.5.1 Notifications to DSA: As required by CAC, Title 24, Part 1, Section 4-342 (b) 5 (see form DSA 151: Project Inspector Notifications and PR 13-01), including start of work, minimum 48 hours prior to completion of foundation trenches, minimum 48 hours prior to first concrete placement, and when work is suspended for more than one month.

> **Note:** For the start of work, the project inspector shall use the date the contractor mobilizes on the project site to begin construction (or demolition, if demolition work is included in the project scope and in the DSA approved construction documents).

Notifications shall be made using form DSA 151 and submitted electronically as prescribed in PR 13-01.

- 2.5.2 Inspector's Semi-Monthly Reports: (See CAC, Title 24, Part 1, Section 4-337). The project inspector must make semi-monthly reports (on the 1st and 16th of every month) on the progress of construction. The semi-monthly report must be completed on the form DSA 155 and submitted in accordance with the procedures described in PR 13-01.
- 2.5.3 Deviation Notices: (See CAC, Title 24, Part 1, Section 4-342(b) 8.) When the inspector identifies deviations from the DSA approved plans and specifications, the inspector must verbally notify the contractor. If the deviation is not immediately corrected, the inspector is required to promptly issue a written notice

> of deviation (form DSA 154) to the contractor and submitted electronically as prescribed in PR 13-01. The project inspector shall contact DSA by email at least 48 hours prior to scheduled work covering up uncorrected deviations. The status and resolution of all deviations must be documented on semi-monthly reports (form DSA 155).

- 2.5.4 Record of Communications to the Responsible Design Professional(s): All uncertainties in the inspector's or contractor's comprehension of or identification of seeming errors in the documents must be reported in writing (email is acceptable) to the responsible design professional(s).
- 2.5.5 Reporting for Projects with Work Stoppage: This may be required in cases where DSA issues a Stop Work Order, Order to Comply or a request for district/owner to stop work in accordance with IR A-13: Stop Work and Order to Comply. DSA may issue specific instructions to the project inspector for additional reporting and/or oversight of construction related to a documented noncompliant condition that is the cause of work stoppage.
- 2.5.6 Verified Reports: (refer to CAC Title 24, Part 1, Section 4-336). The project inspector shall submit verified reports (form DSA 6-PI and, when applicable, DSA 152-IPI) directly to DSA, the responsible design professional(s) and the school district as described in PR 13-01.

The PI must also communicate to applicable parties how they addressed issues noted in communications (e.g., field trip notes, notifications, telephone calls, emails, letters, etc.) from DSA representatives or design professionals.

2.6 CATERGORY 6 - Inspector's Monitoring of Both the Structural/Materials and Fire/Life Safety Testing and Special Inspection Program: The inspector is responsible, under the direction of the design professional in general responsible charge, for monitoring the work of the laboratory of record (LOR) and any special inspectors and other technicians hired directly by the school district to ensure that all structural/materials and fire/life safety testing and special inspections required for the project are satisfactorily completed in accordance with the DSA approved documents. Those special inspections prescribed by Chapter 17A of the 2013 CBC Title 24, Part 2. which are performed by the project inspector, require detailed daily inspection reports by the project inspector.

The project inspector must monitor the following aspects of the structural/material and fire/life safety related testing and special inspection program:

- When DSA approval for special inspectors is required for district-employed special inspectors, the project inspector must identify and report any special inspectors on the job site that are not DSA approved on form DSA 155. The project inspector must contact the design professional in general responsible charge and/or the school district to resolve this as soon as possible.
- The project inspector must verify that the LOR is included on the List of DSA Accepted Testing Laboratories on the DSA website and is qualified to perform the project tests and inspections. If there are tests or inspections the LOR is not qualified to perform, the project inspector must contact the design professional in general responsible charge and/or the school district to resolve this as soon as possible.
- The project inspector must verify that the LOR and special inspectors have received sufficient advance notification to perform the required material sampling or special inspection.

- The project inspector is responsible for verifying that all required material sampling, structural and fire/life safety related tests and special inspections have been performed. The project inspector is also responsible to verify special inspector's possession of valid certifications for the work being inspected. The project inspector is also responsible to monitor any special inspector's on-site presence, performance of duties, the special inspector's documentation of complying and noncomplying work, and issuance of deviation notices.
- The project inspector is responsible for reviewing all structural/materials and fire/life safety related test and special inspection reports. The project inspector must report on semimonthly reports (DSA 155) the status and resolution of deviations (form DSA 154) reported by any LOR or special inspector.

Refer to IR 17-4 and IR 17-6 for additional information.

2.7 CATEGORY 7 - Monitoring of Assistant Inspectors: The project inspector must provide technical guidance to assistant inspectors and must verify the assistant inspectors' comprehension of the construction documents. The project inspector must also monitor the assistant inspectors' performance, verifying that the assistant inspectors are properly checking the construction, recording inspections, and performing other assigned duties.

The project inspector must ensure that any assistant inspector is performing the duties indicated on the assistant inspector's approved form *DSA 5-AI: Assistant Inspector Qualification and Approval.* See IR A-12.

The project inspector must provide continuous onsite supervision of all assistant inspectors.

- **3. DSA OVERSIGHT:** Each DSA regional office has field engineers who conduct oversight of the project through review of documents and construction site visits. Each site visit typically includes the following:
 - Monitoring of the project inspector's administration and documentation of project activities
 - Observation of construction
 - Documentation of site visit findings using DSA field trip notes (form DSA 135).
- **3.1 Project Inspector Performance Review:** The DSA field engineer may evaluate the project inspector's performance of code required duties for and administration of the project using the Project Inspector Performance Review (form DSA 119.) The purpose of the performance review is as follows:
 - To verify:
 - Continuous inspection of all work, including any portion performed by assistant inspectors.
 - Comprehension of the DSA approved construction documents.
 - Proper oversight of the testing and inspection program.
 - Proper communications/notifications to DSA and others as well as response to or appropriate action taken based on prior DSA communications.
 - Completeness of the project inspector's records as described in the job file list in Section 2.1.

- To communicate:
 - With the project inspector and responsible design professional regarding the project inspector's performance.
 - Any project documentation or other issues during construction, such as project inspector's proper noting and communication of deviations and their resolutions, to facilitate timely project certification.

The form DSA 119 is a project record which is maintained in DSA project files as well as posted both in DSA's electronic submittal system (<u>DSAbox</u>) and the <u>Project Inspector Performance Review Box</u>. At the completion of a project, form Project Inspector Performance Record (form *DSA 180: Project Inspector Performance Record*) will be completed and posted to these same locations.

- 3.2 Observation of Construction by DSA: The DSA field engineer conducts a site walk to make observations as necessary to ascertain that inspections have been completed diligently. During the site visit, the DSA field engineer may provide guidance to the project inspector, as needed, to ensure enforcement of the CAC and approved construction documents.
- 3.3 DSA Field Trip Notes: At the conclusion of the site visit, the DSA field engineer issues a field trip note (form DSA 135) as described in PR 13-01. The field trip note indicates any findings by the field engineer that require action by the project inspector and/or the design professional(s) to ensure project compliance with Field Act requirements. The field trip note may include informational comments, including construction status and guidance given to the project inspector. The field trip note becomes a part of the DSA project records.

REFERENCES:

California Code of Regulations (CCR) Title 24

Part 1: California Administrative Code (CAC)

Sections 4-211, 4-212, 4-214, 4-219, 4-240, 4-241, 4-242, 4-333, 4-333.1, 4-334, 4-336, 4-337, and 4-342

California Health and Safety Code, Sections 16017 and 16021

California Education Code, Sections 17309, 17311, 81141 and 81143

This This IR is intended for use by DSA staff and by design professionals to promote statewide consistency for review and approval of plans and specifications as well as construction oversight of projects within the jurisdiction of DSA, which includes State of California public schools (K—12), community colleges and state-owned or state-leased essential services buildings. This IR indicates an acceptable method for achieving compliance with applicable codes and regulations, although other methods proposed by design professionals may be considered by DSA.

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