

SECTION 2-3

PROCESSING PLANS AFTER PLANS, SPECIFICATIONS AND ESTIMATE (PS&E) SUBMITTAL

2-3.1 Draft Contract Ready

After PS&E submittal by a district, DES-OE Project Plans Unit will send the district a “First Notice,” acknowledging that the plans portion of the district’s PS&E submittal has been received. It is recommended that the district keep the MicroStation files (.dgn) of the Project Plans as submitted to DES-OE. There may be cases where the district submits revised, replacement or additional plan sheets after the original PS&E submittal, and will receive another “First Notice.”

Upon a complete review of the district PS&E submittal, DES-OE develops Draft Contract Comments (DCC). In reviewing the DCC, the district has their only opportunity to respond to any redline change before the printing of the PS&E package (Bid Set.) After the district reviews, discusses and agrees with the DCC, the District Responses (DR) are returned to DES-OE. Note: the project engineer may request a scanned copy of a particular redline plan sheet from the DES-OE-Spec Engineer (SE) only if it is necessary to convey the redline plan change. Any change or correction after the DCC must be handled by addenda.

The Draft Contract Ready (DCR) process finalizes the contract documents for advertisement. After the Project Plans Unit (PPU) has completed the redline changes to the plans, the final project plans will be available to be viewed on the web in TIFF format. The SE prepares a Quality Feedback

and DCR memo to be sent back to the district project engineer along with the final Special Provisions.

The Structures portion of the project plans will be handled by DES-OE directly with Structure Office Engineer and the structures design engineer. For further instructions on the DCR process, contact DES-OE.

2-3.2 Project Ready-To-List (RTL) Certification

The Construction Contract Development (CCD) Guide describes activities, roles and responsibilities required to complete project plans, specifications and estimate, to advertise, open bids, and award a construction contract. The CCD Guide (formerly RTL Guide) is available at: <http://www.dot.ca.gov/hq/esc/oe/rtl/ccdg/CCD-Guide.pdf>

RTL certification ensures that all applicable design, right of way, environmental, regulatory, and statutory conditions have been addressed in the plans, specifications, and estimate. See Sections 1 and 2 of the CCD Guide. Two of the requirements for RTL that involve CADD files are Cross-Sections and the Survey File Checklist.

Earthwork cross-sections are a vital component in the development and construction of many projects. They assist the designer in developing the most efficient way to handle the earthwork items and assist the bidder in understanding the scope of the earthwork to be performed. Surveys, Construction and the Contractor utilize the earthwork cross-sections to construct the project as designed.

Although cross-sections are not included in contract bid documents, they are supplemental information for the

convenience of bidders. When cross-sections are prepared, they shall be made available to bidders. Potential bidders will be notified in the “Notice to Contractors” that cross-sections will be available through the District/Region Construction Duty Senior in the district in which the project is located.

For guidance in developing earthwork cross-sections, see Chapter 3 of CADD Users Manual.

The Survey File checklist shall be completed as described in the Project Development Procedures Manual "Appendix QQ." The Survey File checklist defines what Surveys will need to stakeout a project. It would be good business practice to submit a draft of the Survey File checklist to Surveys at PS&E for QA/QC, even though it must be completed and submitted to Surveys by the RTL date in order to achieve RTL Certification.

2-3.3 As-Awarded

After a project has been awarded to the winning bidder, DES-OE will send the District a “Second Notice,” which instructs the District to copy back the As-Awarded .dgn files. These .dgn files include any addenda that may have occurred during the advertisement of the project. All .dgn files in DES-OE for a particular project will be deleted on the date listed in the "Second Notice." The District will need to keep the As-Awarded MicroStation files for possible use by Construction during the course of constructing the project. The As-Awarded project plans are microfilmed and stored by the HQ Microfilm Unit.

The district (or consultant, as the case may be) shall use the As-Awarded MicroStation files when developing the As-Built plans at the completion of construction.

2-3.4 Contract Change Order

Changes to a contract may be necessary during the construction of any project. A change is made with a Contract Change Order (CCO). A CCO is a legally binding document used to make changes to the contract.

Construction is the lead in handling CCOs. Depending on the nature of the change, Construction will usually consult with or get concurrence from the project engineer when the change affects the design of the project. For a comprehensive look at how the CCO process works, see Chapter 5 of the Construction Manual.

If replacement or additional sheets are generated by the CCO, they must have the signature and seal of a registered engineer (whether the engineer be from Design or Construction) who is most responsible for the change. Before the As-Built plans can be completed, each replacement or additional project plan sheet must contain the signature and seal of a registered engineer.

2-3.5 As-Builts (Roadway Plans)

As-Built plans are the original project (As-Awarded) plan sheets that have been updated showing changes that occurred during construction. Accurate As-Awarded and As-Built project plans are needed for possible litigation involving construction claims and tort liability suits.

As-Built plans represent the existing field conditions at the completion of a project, and may be used as reference or base mapping for future projects.

All As-Built plans must be clearly identified as such. All plan sheets containing changes must have the name of the Resident Engineer, the Construction Contract Acceptance (CCA) date, and the contract number. Except for certain projects that do not require a State representative on site during construction, Districts will be responsible for all As-Built road plans.

The Resident Engineer can make the field changes to hard copy prints (afterwards transferred to the original As-Awarded project CADD files) or directly to the As-Awarded project CADD files themselves. For the final As-Built plans, revisions are noted by lining out the original information but it must still remain legible. Do not eradicate original figures or make corrections over them. All lettering must be legible. The changes shall be made in such a manner that they will produce good quality microfilm.

For instructions on how to complete the As-Built changes in the As-Awarded project CADD .dgn files, see Chapter 4 of the CADD Users Manual. The final As-Built changes shall be completed in the original As-Awarded project CADD .dgn files on Level 62.

In order to attain uniformity, the following data should be shown on “As Built” plans:

- Revision of alignments and right of way.
- Grade revisions in excess of 0.1 foot.
- Drainage changes.
- Revisions made to typical sections.
- Change in pavement lanes, sidewalks, islands, and median openings.
- Curb and gutter changes.
- Electrical conduits, pull boxes, and

service points.

- Revision in the location of utility crossings and facilities made during construction.

For further information on data shown on As-Built plans, see Chapter 5 of the Construction Manual.

When the As-Built plans are completed, the District shall create TIFF files from the .dgn As-Built plans and send them to the Document Retrieval System (DRS) Unit at HQ CADD. When a .dgn file does not exist, then the original hard copy As-Built print shall be scanned to a TIFF file.

For archiving purposes, As-Built plans must be submitted to the DRS Unit within the allotted time as described in the Project Development Procedures Manual (PDPM.) For further guidance on archiving of As-Built plans to the DRS Unit, see Chapter 4 of the CADD Users Manual and Chapter 15-Section 3 of the PDPM.

2-3.6 As-Built (Structure Plans)

After construction is complete, the As-Built plans redline corrections can be placed on either a hardcopy set of the As-Awarded (Second Notice files) plans or a copy of the “Second Notice” project CADD files. For redline corrections made, the Structure Representative uses the records of changes made to the structures during construction, to redline a set of contract plans. The corrections are shown, in red, to depict what was actually constructed. The Structure Representative then sends the As-Built plans redline corrections (either hardcopy or electronic) to DES Structure Construction. Structure Construction will log the redline corrections and forward them to the

appropriate Design Branch (which may be a consultant if it was a consultant design project.)

When making the redline corrections on a copy of the As-Awarded project CADD files, a MicroStation redline program is used by the Structure Representative. Changes are to be made on Level 62 using Color 62. Drafting standards will be maintained using Caltrans Metric Structural Detailing Standards or Caltrans U.S Customary Units Structural Detailing Standards. Contact DES-Structures for further information about detailing standards.

The appropriate Design Branch or consultant (if it was a consultant design project) will finalize the As-Built plan process. The Design Branch or consultant will request the “Second Notice” files to add the redline corrections. The responsible Project Engineer must submit the form DS-D0144 (Change to Contract Drawings) or DS-D0144E (Request for Electronic Contract Drawings) to the Structure Design Document Unit to obtain hardcopies of the “Second Notice” files. The DS-D0144E form must also be sent to DES CADD Services in order to obtain the “Second Notice” original project CADD files. For more information please see Bridge Memo To Designers 1-16.

The Design Branch or consultant must follow the procedures for As-Built redline corrections as outlined in the Bridge Design Details Manual, pages 1-20.1 through 1-20.5, and Chapter 5 of the Construction Manual.

DES-Structures or consultant shall create TIFF files from the completed .dgn As-Built plans and send them to the DRS Unit. When a .dgn file does not exist, then the original hard copy As-Built print shall be scanned to a TIFF file. TIFF files shall also be placed in the Bridge Inspection Retrieval Information System (BIRIS.)

2-3.7 Projects Not on State Highways

For information concerning this topic, see Chapter 5 of the Construction Manual.