

CHAPTER 10. AS-BUILT DRAWINGS

10.1 Purpose. A set of drawings, which depicts the actual as-built conditions of the completed construction, provides the user with a permanent record of each project feature. **These working as-built drawings will typically be red lined mark ups of two sets of the Construction plans, (one for use by the Contractor and one for use by the Government). The working As-built drawings must be reviewed at least monthly by the Resident Engineer in conjunction with the approval of progress payments.** The contract requires the Systems Contractor to **prepare**, maintain and deliver to the Government a set of redlined, record drawings, which show the actual as-built conditions of the construction phases. After Government review and approval, these marked-up drawings will be sent to the contractor who will produce **three copies of** a final set of as-built drawings. **One set for the Corps of Engineers, one for the User or Owner, and one for the Systems Contractor who** must also keep a permanent set of as built **drawings.**

10.2 Procedure. The as-built drawing procedure has three steps.

a. All changes, no matter how minor as well as all clarifications, are entered into a change database and recorded by the Systems Contractor on two sets of redlined or record drawings. Changes and clarifications refer to shop drawings, field ECP's, change orders, modifications, and RFI's which have been reviewed and approved by the Government.

b. Redlined drawings must be transferred to the Architect-Engineer for configuration management verification, baseline comparison, entry into the CADD system, and creation of a reproducible set of drawings labeled As-Built Drawings.

c. When as-built drawings are completed and approved by the Government, the entire set is then sent to the Systems Contractor to use during the systemization and operations phases of the contract. **OSC** policy and procedures establish storage, updating, and maintaining of as-builts in the data control center during these phases.

10.3 Systems Contractor Responsibilities.

a. The Systems Contractor will maintain a drawing card file or computer database to log changes (revisions) to the contract drawings. An RFI number, ECP number, Change Order number, letter number, and report number, etc., must be cited. The Systems Contractor will maintain, throughout the systemization phase, a separate set of redlined, full-size, marked-up drawing set that fully indicates the current status of facilities under construction. The redlined drawings depict all current variations/deviations from the contract drawings, including optional materials, and the required coordination between trades. These variations will be shown in the same general detail as that used in the initial contract drawings. These drawings will be available for Government review. At 30-day intervals, the redlined prints will be reviewed and, at the Contracting Officer's discretion, submitted for update. These redlined drawings then are used to prepare as-built drawings at the completion of each major system within the construction and installation of equipment phases. The as-built drawings are part of the permanent facility records for maintenance, operations, and modification activities, in addition to systemization and operation activities.

b. The Systems Contractor will physically update the redlined drawings to incorporate revisions and on a monthly basis submit them and the drawing card or database listing for review. Changed information on the actual redlined drawing will be as needed, but due to magnitude of changes may not be required each month. In lieu of actual redlined updates for minimal revisions, the Systems Contractor will submit, monthly, only the copy of his drawing card or database, which lists the acknowledged changes not yet, incorporated onto the redlined drawings.

c. When a drawing is updated for a given period, the Systems Contractor will submit a single full-sized sepia of the drawing to the Corps of Engineers for review as part of the monthly contract update. The Corps of Engineers will keep the redlined drawings and will be responsible for its own reproduction requirements.

d. The Corps of Engineers will notify the Systems Contractor of any errors or omissions to include on the revised redlined drawings.

e. Final As-built drawings – the contract specifications will require the Contractor’s project schedule to show separate activities with realistic payment amounts for preparation of the final as-built drawings after the completion of specific phases of work (foundations, utilities, structural steel, etc. as appropriate for the project). Compliance and delivery of the final as-built drawings will be enforced through the approval of progress payments. Also, the quality of the final as-built drawings will be reflected in the construction contractor’s performance evaluation.

f. Transfer to Customer – the completed final as-built drawings, in the required media, format and quantities, will be provided to the customer within 60 days after project transfer. (The 60-day period satisfies the requirement in Army Regulation 415-15, Army Military Construction Program Development and Execution). The 60-day period includes time for final drawings preparation by the Contractor, Government review, and correction by the Contractor.

Final delivery of the redlined drawings takes place after each major building or system is completed or installed. Approval will be on final delivery.

10.4 Configuration Management/Architect-Engineer Responsibilities. When the construction phases of the contract are finished, a complete set of marked-up and approved redlined drawings will be turned over to the Architect-Engineer. The changes will be transferred to the permanent computer-aided design and drafting (CADD) drawing file and labeled as as-built conditions.

The site plans, building plans, cross sections and elevations, schedules, and all other portions of the drawings including location of mechanical service, utility lines and outlets, will be revised to provide a clear understanding of the as-built facility. As-built drawings, together with as-built construction specifications, final shops drawings, and the design analysis will be furnished to the using activity. The Government will provide approved as-built drawings to the Systems Contractor at the beginning of the systemization phase. Drawings must be developed on a CADD system compatible with the Interactive Graphics Exchange Standards.

10.5 Systems Contractor Responsibilities During Systemization and Operations. (IGES). The Systems Contractor will develop and implement a procedure to maintain as-built drawings throughout the Systemization and Operations phases (including all implemented construction modifications). This procedure will be described in the Data Control Plan.

All changes executed during the contract systemization and/or operation phases must be coordinated through the FCCB/CCB and the Architect-Engineer for approval/concurrence and configuration management consideration. An as-built procedure for these phases is the responsibility of **OSC**.