Federal Highway Administration Central Federal Lands Highway Division (CFLHD)

Sealing and Signing of Architect-Engineer Documents

Policy. Architect-Engineer (A/E) consulting firms shall seal and sign engineering work, as provided under the contract and as described hereon. It is our expectation that a licensed professional registered in the state in which the project is located seals documents.

Objectives. The objective of this policy is to comply with Federal Acquisition Regulation (FAR) Clauses 36.609-4 and 52.236-25 (as stated below) and to define CFLHD sealing and signing requirements.

FAR Clause 36.609-4 Requirements for Registration of Designers.

Insert the clause at 52.236-25, Requirements for Registration of Designers, in architect-engineer contracts, except that it may be omitted when the design is to be performed -

- (a) Outside the United States and its outlying areas; or
- (b) In a State or outlying area of the United States that does not have registration requirements for the particular field involved.

FAR Clause 52.236-25 Requirements for Registration of Designers.

As prescribed in 36.609-4, insert the following clause:

Requirements for Registration of Designers (June 2003) - Architects or engineers registered to practice in the particular professional field involved in a State, the District of Columbia, or an outlying area of the United States shall prepare or review and approve the design of architectural, structural, mechanical, electrical, civil, or other engineering features of the work.

<u>Sealing and Signing of Documents.</u> Seal and sign contract documents according to FAR Clause 52.236-25, Requirements for registration of designers. The professional fields identified in FAR Clause 52.236-25 include Landscape Architectural work.

Acceptable seal types consist of the rubber stamp and computer generated type meeting the requirements of the issuing state. Do not use metal impression type seals due to the lack of consistent legibility during reproduction. Do not seal engineering documents that are not final. Label preliminary documents with descriptors, e.g., "Not For Construction", "Preliminary", "95 Percent Review".

The personal seal, signature and date of the licensed professional (licensee) shall appear on all final engineering documents. Documents shall be signed personally and sealed by the responsible architect or engineer. An architect or engineer shall not affix, or permit to be affixed, his seal or name to any plan, specification, drawings, or other related document which was not prepared by him or under his responsible supervising control.

When a licensee signs and seals a document the licensee is responsible for the entire engineering work unless the licensee limits the seal to specific elements of work. To limit the scope of

responsibility for engineering work the licensee must include a specific written statement adjacent to the seal, which accurately reflects the scope of responsibility. However, all disciplines and aspects of the work must be signed and sealed. The licensee may limit responsibility of FHWA furnished data to the correct selection, incorporation, and specification of the data. The selection and incorporation of the data must be consistent with the design intent. Data where responsibility may be limited includes Federal Lands Highway (FLH) "Standard" drawings, CFLHD "Detail" drawings, and data where CFLHD was responsible for controlling the end result.

A seal must be applied to either the final reproducible or final reproduction of:

- Each sheet of engineering drawings;
- The cover page of specifications;
- The title page of cross-sections bound separately and prepared specifically to supplement project drawings;
- The title or signature page of engineering reports (e.g., Geotechnical, Hydraulic, traffic studies);
- The title or signature page of formal technical memorandums;
- The cover page of construction staking reports;
- Permits requiring sealing, including documents that are submitted to obtain the permits;
- Estimates: and
- All other formal technical recommendations or deliverables.

Through the original seal shall appear the original signature of the licensee and the date of signature. The use of a signature stamp or a computer-generated signature is prohibited.

Location of Seal on Plan Sheets. Place the seal in the lower right-hand corner adjacent to the title block of each sheet. When this is not possible, place the seal in a location that will produce a legible reproduction.

Electronic Documents With a Secured Signature. Final electronic versions of engineering work transmitted in an electronic format shall contain a computer generated seal and be accompanied by an electronic signature as described below:

An electronic signature is a digital authentication process attached to or logically associated with an electronic document and shall carry the same weight, authority, and effects as an original signature. The electronic signature can be generated by using either public key infrastructure or signature dynamics technology, and must be as follows:

- 1. Unique to the person using it.
- 2. Capable of verification
- 3. Under the sole control of the person using it.
- 4. Linked to a document in such a manner that the electronic signature is invalidated if any data in the document is changed.

A scanned image of the title sheet or cover page with an original seal and signature is to be used in lieu of an electronic signature for plans and specifications.

Effective August 01, 2005 all final electronic formatted deliverables shall conform to the above requirements. Documents that can readily conform to the above requirements before the effective

date should meet the requirements. Contact the project manager for clarification on sealing requirements for electronic files submitted before August 01, 2005.

Electronic Documents Without a Secured Signature. If a professional document is stored, filed, or provided by computer disk, tape, DVD, or any other electronic form other than those capable of a secure electronic signature, the licensee shall mark each professional document "This document is an electronic copy of final document, originally sealed by (name), Registration Number (number) on (date)." Sets of plans or drawings must have this statement attached to every sheet of the set. For specifications, reports, and studies, only the cover or introductory sheet need include this statement.

<u>Revisions to Sealed Documents by A/E.</u> Changes to A/E consultant prepared engineering documents should be made by the original firm/professional who sealed the document. When the revisions are made by the original firm/professional, maintain a clear record of the changes and reseal the documents. Maintain copies of the originally sealed and signed document and mark each sheet changed as REVISED, include date of revision, and person responsible for revision.

In the event the original professional is unable to authorize changes, the professional's firm shall authorize another professional to make changes to final sealed documents, unless contractual responsibility has expired. If a document is changed by someone other than the original firm/professional, a clear record of corporate responsibility for the change must be maintained and the document resealed indicating the change of responsibility. It is our expectation that significant changes, such as changes affecting the design intent, or details of implementation, shall only be made in consultation with the original firm/professional, and with the written concurrence of the original firm/professional. When the original firm/professional is not accessible for consultation the A/E revising the document affected by the change have been considered for revision. The process must contain a record keeping component indicating responsibility for the change. The document is to be resealed by the responsible professional.

The following procedures must be followed to maintain a clear record of responsibility for significant changes:

- Develop a tracking log recording the revisions made and responsibility;
- Provide a letter acknowledging corporate responsibility for all aspects of engineering work affected by the revisions.
- Identify each revision made to every sheet affected by the change by placing the following symbol and appropriate identifier number next to the change;

• Tabulate the changes made on each sheet by listing the symbols and description of the revisions made (e.g.,);

Symbol Description of revision made

Bar B4 changed to #4, date, last name of professional

Bar A2 changed to 2'-6", date, last name of professional

• Maintain copies of the originally sealed and signed document and mark each sheet changed as REVISED, include date of revision, and person responsible for revision.

Revisions to A/E Sealed Documents by CFLHD Staff. In extremely rare situations, changing of A/E prepared engineering documents by CFLHD personnel may be necessary. Before initiating this method of revision, obtain the approval of both the Project Management Branch Chief and the Contracting Officer. It is our expectation that the A/E will have staff available to expedite revisions and engagement of CFLHD staff will be very limited.

Revisions made to documents that do not change the original design intent shall be resealed by the A/E. The responsibility for the original design must remain with the originator of the documents, unless the design intent has changed. Coordination with the firm/professional who originally prepared the document will be necessary to attain resealing of the documents. The term "Minor" is used hereon to define those revisions that do not change the original design intent.

The "original design intent" is defined as the project design criteria, line, grade, template, and roadway features, elements, and appurtenances as agreed upon among all project stakeholders after the 95% review, incorporation of comments, and finalization and execution of the Highway Design Standards Form, excluding any modifications required to make the PS&E contract ready resulting from program limitations or funding modifications requested by the client agency or imposed by other entities which do not change the original design intent as defined heretofore, to include, but not limited to, the modification of Summary of Quantities and related plan sheets and Special Contract Requirements for solicitation of bids with schedules or options.

The following protocols are listed in order of preference and are to be used when revising documents:

Revisions by A/E. Comply with requirements stated in the above section.

Minor revisions by CFLHD and resealing of documents by A/E during advertisement. This is the preferred method when it is necessary for CFLHD to make the revisions and sufficient time is available for resealing of the documents. On a copy of the revised originals, record changes made to the documents according to the procedures listed below. Provide the revised originals and the revision record copy to the A/E to facilitate sealing. Coordination must be given high priority to attain resealing of documents. The original firm/professional is responsible for making the necessary checks to determine that the work has been completed in a proper and professional manner.

Minor revisions by CFLHD and resealing of documents by A/E before the conformed set is produced. To expedite the dissemination of amendments during advertisement it may be necessary to distribute revisions without the A/E's signature on the seal. On a copy of the originals, record changes made to the documents according to the procedures listed below. Provide the revised originals and the revision record copy to the A/E to facilitate sealing. Include the following statement adjacent to the seal "This sheet/page replaces the originally sealed and signed sheet, construction drawings will be provided that contain an original seal and signature". Notify the A/E of the revisions made by providing copies of the changed sheets/pages and reiterate the requirement for resealing the document. Attain resealing of the document before the conformed set is produced. The original firm/professional is responsible for making the necessary checks to determine that the work has been completed in a proper and professional manner.

Minor revisions by CFLHD without resealing of documents. In extremely rare cases it may be impossible to attain resealing of documents by the firm/professional who originally prepared the document. In these cases, affix the revised sheet to the original sealed and signed sheet. Mark the original sheet as revised and record the changes on the amended sheet according to the procedures listed below. Include the following statement on the amended sheet "This sheet was originally issued and sealed by (name), Registration Number (number) on (date)."

Revisions by CFLHD affecting the original design intent. Unless specifically authorized the original design intent is not to change. When approval is granted and the design intent changes remove seals only for those aspects of the work affected by the revision. The responsibility for those aspects of the design affected by the revision is transferred to CFLHD and the responsibility for the remaining engineering work resides with the original firm/ professional engineer. Communicate to the A/E all changes made and provide copies of the revision. This is considered notification of changes and provides an opportunity to the A/E to comment. Concurrence by the A/E of the revisions is not necessary given that the seals will be removed.

The following procedures must be followed to maintain a clear record of responsibility:

- Obtain and document approval;
- Determine the extent of the revision and the need to remove A/E seals.
- Develop a tracking log recording the revisions made and responsibility;
- Identify each revision made to every sheet affected by the change by placing the following symbol and appropriate identifier number next to the change;



• Tabulate the changes made on each sheet by listing the symbols and description of the revisions made (e.g.,);

Symbol Description of the revision made



Bar B4 changed to #4, date, last name of reviser

Bar A2 changed to 2'-6", date, last name of reviser

If revisions to a sheet are too extensive to identify each revision, provide a change description of the significant revisions and indicate replacement of entire sheet, date sheet replaced, and responsible person for the change.

• Maintain copies of the originally sealed and signed document and mark each sheet changed as REVISED, include date of revision, and person responsible for revision.