

CONSTRUCTION SOLICITATION, AMENDMENT, AWARD AND MODIFICATION PROCEDURES FOR DRAWINGS

AMENDMENT PROCEDURES FOR DRAWINGS:

1. Amendment drawing changes shall be indicated by a triangle or delta .25 inch high on English sheet drawings or 7 mm high for the metric sheet drawings at the location where each amendment change to the drawing occurs. Provide a cloud around the area at each change. Do not obscure drawing details with the cloud. The delta shall be placed inside the cloud. Each delta on the drawing sheet shall be referenced outside the border of the drawing between the border and the edge line. The reference deltas shall be placed in 2 locations in the border, at the side and top or side and bottom. Reference deltas shall be placed in the closest border from the delta on the drawing sheet. An alpha character (lowercase) inside the delta shall be utilized to indicate the amendment number, use “a” for amendment number 0001, “b” for amendment number 0002, “c” for amendment number 0003, etc. The deltas will not be numbered in the body of the drawing, only the total number of deltas will appear in the title block as described below.
2. For noting amendment changes in the title block there are spaces for the Symbol, Description, Action, and Date. In the Symbol area place the delta and corresponding alpha character for each amendment. At the upper right of the delta, indicate the total number of deltas that appear on the drawing sheet inside the border for each amendment. The number of deltas should only appear in the title block, no numbers should appear next to the deltas on the drawing sheet or the reference deltas in the border. Briefly describe the change or changes that occur for each amendment on the drawing in the Description field. Descriptions shall not be more than one line but describe the actual changes on the drawing sheet (examples: “Changed General note 3”, Revised Detail 4/10, Inserted new Detail 5/10, etc.). Identify the amendment number in the Action field by putting “AM” and the amendment number (example: AM 0001, AM 0002, AM 0003, etc). In the Date field put the month and the year that the amendment is to be issued (Oct 98, Nov 98, Dec 98, etc.). Successive revisions shall be shown progressing upward in the revision block. Designers should contact the Engineering Manager to obtain the amendment number before making amendment changes. Amendments addressing non-technical specification sections, etc. are sometimes issued which the designer may not be aware of.
3. When there is more than one amendment on a drawing, all previous deltas shall remain, the most current amendment will be clouded. Remove all clouds from previous amendments on the sheet.
4. Line thickness and font : Line thickness for deltas and text shall be .35 mm or .014 inches. Use Microstation “font 1” or Autocad “Romans” fonts. Line thickness for clouds shall be 1.0 mm or .039 inches wide.
5. A Microstation cell library that has deltas and cloud symbols and line style library that has a cloud line is available from the Ft. Worth District. An Autocad block file that has deltas and cloud symbols is available also ([ammod.cel](#), [cloud.rsc](#)).

6. At the discretion of the Government, it may be desirable to make drawing changes by write-in descriptive amendment or utilizing 8.5" X 11" sketches. However, this process is utilized only when necessary due to time constraints which is less of a factor because of the paperless advertising process. The A-E shall not make the determination on use of a write-in change. Drawing amendments that are done by narrative/write-in or sketch during the solicitation period shall be incorporated by the A-E into the drawings for the contract award set to include hardcopy drawings, CADD files, and .cal files. See below.
7. All changes made to the drawings shall incorporate the actual size or proportion of the objects on the drawings. Changes to the dimensions with no change to the changed object are not acceptable, except where details are not to scale. Designers shall coordinate changes on all drawings that are effected by the amendment.
8. To accompany the amendment the following shall be submitted:
 - ◆ Two Compact Disks with the following information on each:
 - a) cal files in a separate directory
 - b) CADD files in a separate directory
 - c) Specsintact files in a separate directory
 - d) pdf specification files in a separate directory
 - e) Amendment Text in Word format which is issued to bidders by category of Replacement Drawings, New Drawings, Replacement Specs, New Specs, etc.
 - f) Excel spreadsheet listing revised sheets with column headings for cal file name, sheet number, sequence number, sheet title, and CADD file name.
 - ◆ Full size signed vellums plotted from cal files

Drawing procedures for Contract award:

1. At contract award all amendments that were done by narrative or write-in during the solicitation period shall be incorporated on the drawing sheets.
2. A contract number shall be placed in the title block and border of each drawing.
3. The Contract number shall be placed on the cover sheet on the right border and below the solicitation number inside the border.
4. All amendment deltas/triangles, clouds, and descriptions shall remain on the drawings as they appeared after the last amendment. No changes will be made to the drawings at contract award except for insertion of the contract number and incorporation of write-in amendments.
5. When posting write-in changes to a drawing, remove any previous clouds and cloud the write-in change and insert appropriate deltas in the cloud and in the title block.

6. The following shall be submitted:
 - ◆ A Compact Disk with the following information:
 - a) cal files in a separate directory
 - b) CADD files in a separate directory
 - c) Specsintact files in a separate directory
 - d) pdf specification files in a separate directory
 - e) Excel spreadsheet listing revised sheets with column headings for cal file name, sheet number, sequence number, sheet title, and CADD file name.
 - ◆ Full size signed vellums plotted from cal files

Drawing procedures for Modifications:

1. Proposed modification drawing changes shall be indicated by a triangle or delta .25 inch high on English sheet drawings or 7 mm high for the metric sheet drawings at the location where each proposed modification change to the drawing occurs. Provide a cloud around the area that each change occurs. Do not obscure drawing details with the cloud. Any amendment clouds that are on the drawing shall be removed when the first proposed modification is done on the drawing. All previous deltas and descriptions for amendments shall remain on the drawing sheets. The delta shall be placed inside the cloud. Each delta on the drawing sheet shall be referenced outside the border of the drawing between the border and the edge line. The reference deltas shall be placed in 2 locations in the border, at the side and top or side and bottom. Reference deltas shall be placed in the closest border from the delta on the drawing sheet. A numeric character inside the delta shall be utilized to indicate the proposed modification number, use "1" for the first proposed modification or modification to the drawing sheet, "2" for the second proposed modification to the sheet, "3" for the third proposed modification to the sheet, etc. The deltas will not be numbered, only the total number of deltas will appear in the title block as described below.
2. For noting proposed modification changes in the title block there are spaces for the Symbol, Description, Action, and Date. In the Symbol area place the delta and a corresponding numeric character for each proposed modification. At the upper right of the delta, indicate the total number of deltas that appear on the drawing sheet inside the border for each proposed modification. The number of deltas should only appear in the title block, no numbers should appear next to the deltas on the drawing sheet or the reference deltas in the border. Briefly describe the change or changes that occur for each proposed modification on the drawing in the Description field. Descriptions should not be more than one line but, describe the actual changes on the drawing sheet, (Identify the proposed modification number in the Action field by putting "DO" and the number. (example: DO 0019, DO 0050, DO 0110, etc). In the Date field put the month and the year that the proposed modification was done (Oct 98, Nov 98, Dec 98, etc.). Successive revisions shall be shown progressing upward in the revision block. Designers should contact the Engineering Manager to obtain the modification D.O. number before make modification changes. DO numbers are generated in Construction Division to track the proposed modifications.
3. When a modification is awarded a P0000 number (example: P0001, P0003, P0006, etc.) will be assigned from contracting that corresponds to the DO number or DO numbers on the drawing. The P000 number shall be inserted in the next open line in the title block, place the P0000 number in the Action field, the date the modification was awarded in the Date field,

and the DO number(s) that correspond to the P0000 number in the Description field. Drawing sheet/sequence numbers shall not be changed for modifications.

4. All changes made to the drawings shall incorporate the actual size or proportion of the objects on the drawings. Changes to the dimensions with no change to the changed object are not acceptable, except where details are not to scale. Designers shall coordinate changes on all drawings that are effected by the modification.
5. The following shall be submitted:
 - ◆ Two Compact Disks with the following information:
 - a) cal files in a separate directory
 - b) CADD files in a separate directory
 - c) Specsintact files in a separate directory (highlight specification revisions with DO number or Mod number)
 - d) pdf specification files in a separate directory
 - e) Excel spreadsheet listing revised sheets with column headings for cal file name, sheet number, sequence number, sheet title, and CADD file name.
 - ◆ Full size signed vellums plotted from cal files

Drawing Procedures for Record Drawings / As-builts:

1. For Record Drawings all proposed modifications shall be verified and the P000 number inserted for all awarded modifications. Proposed Modifications that were not awarded shall be removed or replaced by the CADD drawing file that was saved before the proposed modification was done.
2. All clouds on the drawings shall be removed. All previous deltas and descriptions for amendments, proposed modifications, and awarded modifications shall remain on the drawing sheets.
3. All field modifications that are that were done by sketched or narrative shall be incorporated into the drawings.
4. All red line markups shown on the marked-up drawings submitted by the construction contractor shall be incorporated into the CADD drawing sheets. New drawing sheets will be created as necessary to show the record drawing as-built conditions.
5. All updates made to the drawings shall incorporate the actual size or proportion of the objects on the drawings. Changes to the dimensions with no change to the changed object are not acceptable, except where details are not to scale. Designers or drafters shall coordinate and correct all dimensions on all drawings that are effected by the updates or changes.
6. Upon completion of the record drawing sheet the date shall be placed in the date area of the title block and the words "Record Drawing As-built" shall be placed in the description area. At the lower right hand portion of the each drawing sheet, outside the border, the words "RECORD DRAWING AS-BUILT" shall be placed (see the example)
7. A final Vellum reproducible print shall be printed from the record drawing CADD files and provided to the Corps of Engineers, Engineering Manger.

Adding or Deleting Drawing Sheets and Index Sheet Procedures:

1. An added drawing shall be indicated as "NEW DRAWING" in the description block of the title block. The added drawing shall be shown on the index sheet by inserting the sequence, file name, drawing, number, and title in the proper location and surrounding the entire identification with a cloud. In order to avoid renumbering other drawings, an added drawing shall be numbered as "SEQUENCE 2A", "SEQUENCE 2B" or drawing "a-1a", "c-2b", etc.
2. A deleted drawing shall be indicated as "DELETED FROM CONTRACT" or "DELETED FROM SOLICITATION" in the description block of the title block. An X shall be placed across the drawing with bold letters "DELETED SHEET". For amendments the deleted drawing shall not be included in the printed drawing set although, the CADD file shall remain part of the CADD drawing files. For modifications the drawing shall remain as part of the drawing set. On the index sheet, the sequence, file name, sheet number and title shall remain and the words "DELETED SHEET" shall be placed in bold letters over the description. Surround the entire line in the index by a cloud and corresponding delta. The sheets deleted shall be identified in the index title block amendment or proposed modification description area.

CADD procedures for Amendments, Modifications, Award, and record Drawings:

1. Amendment and modification clouds, deltas, and delta text shall be placed on the *-anno-revs level/layer (microstation level 63) in the sheet file for each drawing sheet. Where * is the discipline code for the drawing. The text in the title block shall be on *-anno-note level/layer (microstation level 5) in the sheet file for each drawing sheet.
2. File naming for amendments and modifications:
 - a) Drawing amendments shall be done in the latest CADD files. The names for these files shall remain the same as named for the review or solicitation CADD drawing files (CADD standard naming convention). A/Es shall submit all the CADD files that have been amended for each amendment, also providing all files necessary to print the amended sheets (reference or xref files). A/Es shall provide all the CADD files necessary for each amendment in a directory identified by the amendment number on the submitted CD. An index indicating the amended drawings shall also be submitted.
 - b) A/Es/designers shall submit a complete set of CADD files .dgn or .dwg at contract award provided in a directory identified on the submitted CD as the contract award CADD files.
 - c) Drawing modifications shall be done in the latest construction contract CADD files. Before modifications are added to a CADD file the original construction contract CADD file shall be "saved as" a .org (original) extension in place of the dgn or .dwg. This allows the designer/draftsman to return back to the .org file if the proposed modification is not awarded. The modifications shall be done in the .dgn or .dwg CADD file. When the modification is finished the modified .dgn or dwg files shall be saved to a file with the last 3 numbers of the DO number assigned to the proposed modification as the file extension. For example if the DO number is DO 0012 the file extension would be .012. When an A/E submits CADD files for modification they shall submit the original

contract CADD files .org, the .dgn or .dwg files that include the modification, and a copy of the .dgn or .dwg file with the last 3 numbers of the DO number as the extension. If another modification is necessary on a previously modified CADD file, the designer shall add the modification to the latest .dgn or .dwg CADD file. The designer will assure all previous modifications to the CADD file have been award before beginning work on the .dgn or .dwg CADD file. After the proposed modification has been incorporated in the .dgn or .dwg CADD file it shall again be copied to a file with the last 3 numbers of the DO number assigned to the proposed modification as the file extension. When a second, third, forth, etc., modification is done on a drawing the A/Es shall submit CADD files for the .dgn or .dwg files that include the current and all previous modifications to the drawing, and a copy of the .dgn or .dwg CADD file with the last 3 numbers of the DO number as the extension. An index indicating the modified drawings shall be submitted with the modified CADD files in an Excel spread sheet file (.xls).

- d) Record drawings shall be submitted as .dgn or .dwg CADD files with the modifications and contractor mark-ups incorporated into the drawing files. All .org and DO number extension files will not be part of the record drawing CADD files submittal. A/Es/designers shall submit a complete set of CADD files .dgn or .dwg for the record drawing submittal provided in a directory identified on the submitted CD as the Record Drawing CADD files.