



ELECTRONIC PLAN REVIEW

DOCUMENT SUBMITTAL RECOMMENDATIONS

Please use the following instructions to prepare your documents for electronic plan check. Note that there are slightly different submittal recommendations depending on the type of project being submitted, and whether you are submitting plan sheets or supporting documents/attachments.

- Providing a complete review package at first submittal will aid in a timely plan review process. Incomplete packages, including incomplete plan sets and missing information, reports or documents, will delay the review process. This may also cause added review cycles as well as additional plan review fees.
- Retain a copy of the submitted file to later verify the sheet order (during resubmittal).
- Different types of plan submittals and/or permits have different review processes, therefore, may require separate submittals and Record/Permit numbers. Please review all plan review submittal forms, guidelines and requirements prior to starting the online submittal process. Design Review, lot alterations, preliminary plats, final plats, subdivisions, etc. have different review processes and are given different Record/Permit Numbers. Therefore, they each must be a completely separate submittal, not just a separate PDF.

A. PREPARING PLANS FOR SUBMITTAL

Cover Sheet Stamping Area:

The cover sheet must have a 4"X4" clear area in the lower right quadrant of the sheet for the Lake Havasu City electronic approval stamp. All other sheets will be stamped in the perimeter border area.

Plan Sheet Size:

Plan sheets may be any standard size up to 36"X48".

Graphic Scale:

Each sheet must illustrate a typical graphic scale. If more than one scale is used on a sheet, an independent graphic scale must accompany the applicable detail. All plans must be drawn to scale.

File Naming Requirements:

- File names should be unique and may not exceed 30 characters.
- Do not use special characters in your file name ".)(*&^%\$#@!/?/>'. You may use letters, numbers, underscores, or hyphens.
- A separate file shall be created for Building, Engineering, and Fire when applicable.
- If you have building or tenant improvement plan sets of more than about 20 pages it is best to break up the plans into logical sets such as "Architectural", "Structural", etc. and name them "Arch.pdf", "Struc.pdf", "MEP.pdf", etc.
- Always retain a copy of the submitted file(s) to later verify the sheet order (necessary for proper resubmittals).

Plan Sheet File Format Standards:

Plans must be submitted in PDF format.

➤ CREATING PDFS:

Each 'plan' (or 'plan set') should be saved as a flattened/optimized PDF. Flatten the drawing layers in your CAD program prior to creating the PDF or use the 'Save As/Flattened' and/or 'Optimized PDF' option in your PDF tool. If a dedicated PDF tool is unavailable, you can visit [Flatten PDF - quick, online, free - PDF24](#) Flatten PDF tool to quickly and securely flatten your PDF online.

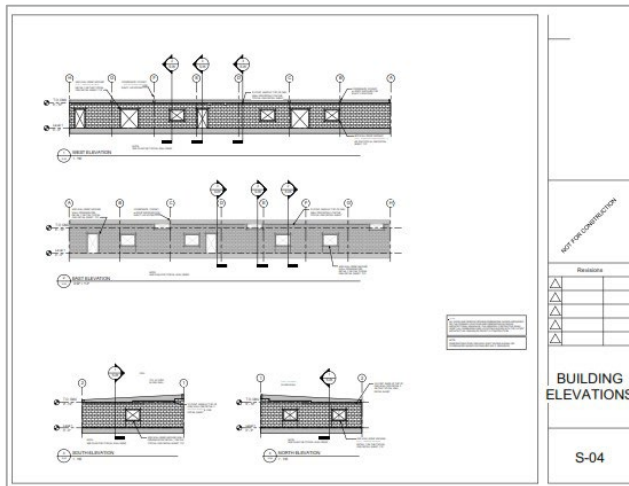
All PDF files should be under **95MB** in size. There is no upper page limit to each file. Resolution should not exceed 300 DPI. **Files must be saved in PDF 1.4 or greater.**

Do not submit password protected or locked PDF documents. Plan reviews are conducted on copies of the original files provided. The original PDFs are not changed in any manner, but protected documents may keep us from being able to place correction comments or approval stamps on the plans.

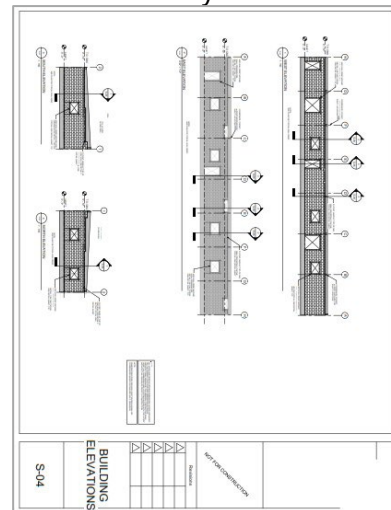
Page Orientation and Alignment

1. Pages must all be properly oriented, meaning upright, **not** sideways or upside down, so that the document can be viewed without rotation. Incorrectly orientated plans may result in a rejected submittal.

To check that pages are properly oriented, open the document in your PDF application and do a '**print preview**'. Scroll through each page in the preview window to make sure the pages are properly oriented. Make sure the correct paper size is selected. This is the best way to check for rotated pages.



CORRECT



NOT CORRECT

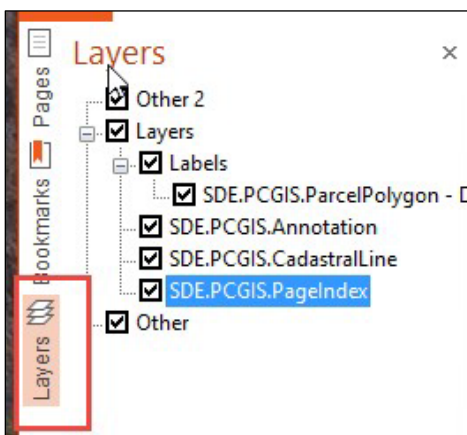
2. Alignment: Plan drawings must be created in your CAD program so that drawing perimeters 'line up' exactly when overlaid electronically.
 - Corrected plans must 'line up' with the original submittal to facilitate comparing versions electronically and shall be numbered/labeled the same.
3. Plans must be saved 'to-scale' to ensure proper measuring of lines and areas electronically.
 - Include an engineer or architectural scale, whichever is applicable on each sheet.

4. Plans should be plotted/drawn using a black and white plot style. Grayscale, monochrome and colored pens are not permitted.
5. After saving the CAD files to PDF format, **ensure that no 'comments' or 'editable content' exist** in the file (embedded hyperlinks are acceptable).
6. Paper plans scanned to PDF format are acceptable but should be clearly legible and follow the same rules above.
7. Ensure the file name meets the naming recommendations noted above.

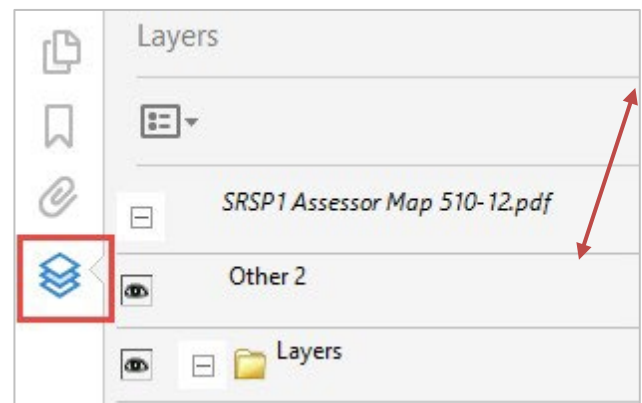
Electronic plan review software relies on correct (PDF/A compliant) information that is embedded in every PDF document (*metadata*). For intellectual property and security reasons, plan review software does not and should not change incoming files. Here are some guidelines for *resolving potential issues* before you submit your plans.

How can I tell if my PDF has 'Layers' or other 'Editable Content'?

Most *PDF compliant* software (like *Adobe Reader*, *Adobe Pro*, *Nitro Pro*, etc.) displays a *Layers icon* when a document contains layers (see below). The Layers icon is not displayed if the file contains no layers recognized by the PDF tool.



Nitro Pro PDF – with
'Layers'



Adobe Reader PDF – with 'Layers'

Other 'Editable Content' includes active **form fields, stamps, comment** or **text boxes, signatures**, or **markups** that can be deleted from the PDF by any user. Editable fields will have a blue background within the PDF. Open the Comment window in your PDF tool to see these types of objects. If any of these are found, please flatten the PDF or remove them. These include plans that use *AutoCAD SHX Text* objects – this font type has compatibility issues in many PDF viewers.

Certain PDF drivers will allow electronic "images" to remain. We recommend using AutoCAD, Adobe Pro or Nitro.

Why do 'Layers' and 'Editable Content' need to be removed from the PDF?

Many tools on the market convert CAD drawings/plans to a PDF format. Unfortunately, some of these tools do not properly translate CAD layers or content. Additionally, conversion irregularities introduced by the CAD program or flatbed scanner may introduce errors into the PDF document. Do not submit files with *any editable content*. If an 'object' can be edited or deleted in the PDF, the document is not acceptable.

Why is page rotation so important?

PDF tools that allow users to 'rotate' pages should properly record that 'rotation' within the PDF document. When this rotation is not properly set by the PDF software, those pages may end up printing upside down or sideways when they are sent to a printer.

What does PDF optimization do?

PDF Optimization reduces file size by removing embedded fonts, compressing images and removing unused objects and improper metadata. Optimization is critical to reduce or eliminate PDF corruption.

B. NAMING SUPPLEMENTAL DOCUMENTS

Supplemental documents or attachments are any files that are not plan sets. These may include Permit Applications, Soils Reports, Cut Sheets, etc. These must also be **submitted in PDF format with a unique, descriptive filename**.

C. SUBMITTING CORRECTED/UPDATED DOCUMENTS

1. For required resubmittals: **Use descriptive filenames similar to the original marked up submittals**. There will be instances where our staff has changed a file name during the original submittal process to either better identify the PDF or because it was necessary to "fix" PDF metadata for our system. When resubmitting, make note of any name changes we may have made.
2. **Do not reorder, extract or insert pages in the middle of your corrected plan sets**. For example, if a 4-page set of grading plans was returned to you for corrections, resubmit the 4 pages of corrected grading plans in the same page order.
 - **Adding Plan Sheets** If submitting new (*additional*) plan sheets, **place new pages at the end** of the corrected plan set document. **Do not** place new pages in the middle or beginning of the document. Do not reorder pages within the document.
 - **Removing Pages**: If pages need to be removed from the plan set either replace them with a blank page or simply cross them out. The page order of the original submittal must be maintained. *In CAD you can mark them as 'Omit' and include the date they were omitted*.

For required resubmittals, rearranging, extracting or inserting pages out of order will result in delays completing your plan review.

Why is page order important?

Resubmitting plans with pages in the original order ensures that the Plan Checkers review comments and sketches are properly carried forward to the newer submittal/version by the electronic plan review software. This allows for more accurate, expedited document reviews.

SUBMITTING REVISIONS AND/OR DEFERRED ITEMS ASSOCIATED WITH PREVIOUSLY APPROVED PLANS

1. Login to your profile on the Lake Havasu City Electronic Online Portal

- Locate the original permit or record # under the "My Records" tab.
- Select "Deferred Submittal" or "Request Revision".
- Upload a PDF of the assembled plan sheets (for revisions only include those sheets affected, not the whole set).
- Upload a separate PDF for any truss calculations, structural calculations, etc.

2. Attached PDFs must be less than 95MB in size.

- Do not upload documents as an attachment to the original permit or record.
- Do not create a "new" permit or record.
- Do follow the same PDF formatting guidelines as for the original submittal.

Why are revisions and deferred submittals handled differently?

Revisions to approved plans and deferred submittals are handled differently in our department in that we "link" these types of submittals to the original permit.