

ELECTRONIC PLAN REVIEW

DOCUMENT SUBMITTAL RECOMMENDATIONS

Please use the following instructions to prepare your documents for electronic plan check. Note that *Plans* have different submittal recommendations than supporting documents/attachments. All PDF files must be under **99MB** in size. Filenames should not exceed 100 characters in length and paper sizes must not exceed 24x36 inches for all civil and landscape plans. Building plans can be larger. Resolution should not exceed 200 DPI. **NOTE: If you are using Auto CAD 2016 (or LT), please see section D.**

- Retain a copy of the submitted file to later verify the filename and sheet order (during resubmittal).
- Resubmittals may be rejected if not submitted with *a filename that exactly matches the original submittal filename*. See instructions in Section 'C.'
- 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, if a fourth submittal becomes necessary.
- Different types of plan submittals and/or permits have different review processes, therefore, may require separate submittals and COC Log/Permit numbers. Please review all plan review submittal forms, guidelines and requirements prior to starting the online submittal process. Onsite improvement plans, off site improvement plans and plats (final, preliminary and minor land division) have different review processes and are given different COC Log Numbers. Therefore, they each must be a completely separate submittal, not just a separate pdf.

A. PREPARING PLANS FOR SUBMITTAL

Each plan set which has its own separate cover sheet must be submitted as a separate PDF. Most projects will have multiple PDF sets submitted. Do not submit one large PDF set with multiple sets of plans. Erosion and Sediment Control Plans, Street Lights Plans and Landscape Plans should each **always** be a separate PDF.

Creating PDF's: Each 'Plan' (or 'Plan set') must 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 available in your PDF tool. **Plans that have 'layers' are not acceptable.**

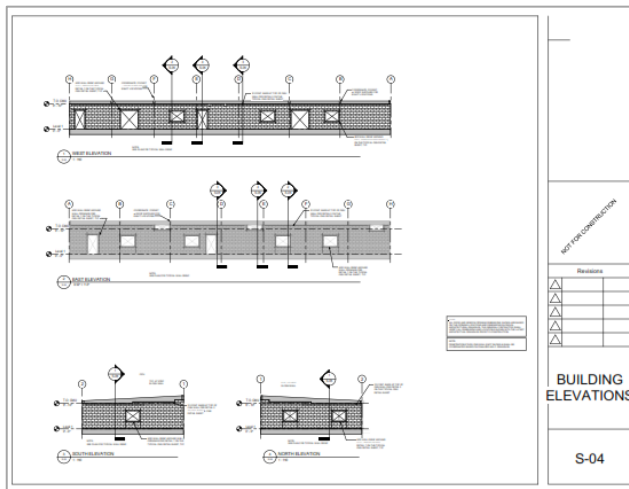
Saving PDF's with consistently formatted, sequential bookmarks is helpful and encouraged. If multiple PDF's are merged, verify that bookmarks are consistent. Nested bookmarks are not officially supported. Ideally, a bookmark consists of the Sheet number and a short description (*example: G1.0 General Notes*)

Naming Plan Sets: Please ensure that the filenames are *descriptive* and *unique*. This will assist the plan review staff with distributing the documents. Do not use any special characters, letter, numbers and spaces only.

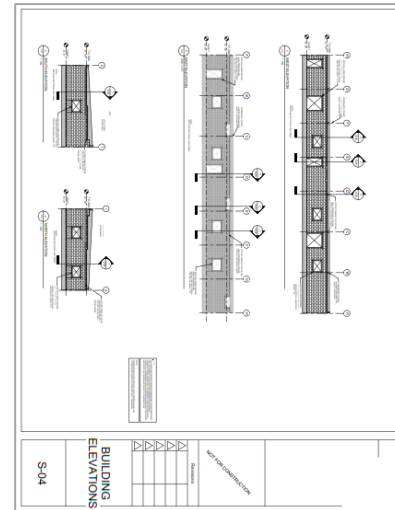
Page Orientation and Alignment

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 will 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

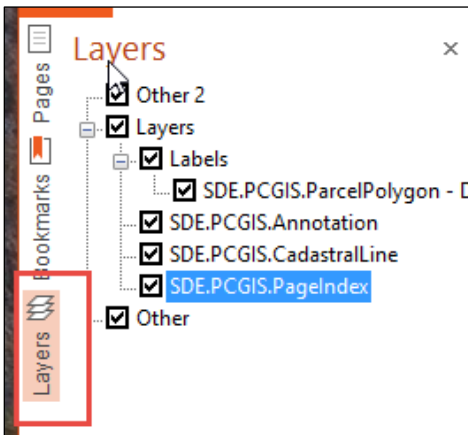
2. Alignment: Plan drawings must be created in your CAD program so that drawing perimeters 'line up' exactly when overlaid electronically.
 - corrected plans must 'line up' with the original submittal to facilitate comparing versions electronically.
3. Plans must be saved 'to-scale' to ensure proper 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 acceptable.
5. Do not submit password protected or locked PDF documents. Plan reviews are conducted on copies of the original files provided. The original PDF's are not changed in any manner.
6. After saving the CAD files to PDF format, **ensure that no 'comments' or 'editable content' exists** in the file. (Embedded hyperlinks are acceptable.)
7. Paper plans scanned from a photocopy to PDF format are acceptable, but should be clearly legible and follow the same rules noted above.

8. Open each PDF using *Adobe Reader/Adobe Pro* and select 'File/Save As'. Adobe is the best tool for resolving corrupted or malformed files. Do not submit PDF's that Adobe indicates are corrupted.
 - Ensure the file name meets the naming recommendations noted above.

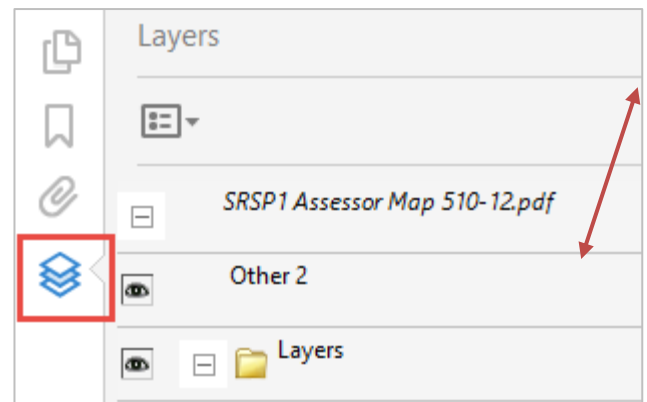
Electronic plan review software relies on correct (PDF/A compliant) information that is embedded in every PDF document (the *metadata*). For intellectual property and security reasons, plan review software does not and should not change incoming files. Here are some guidelines for *resolving potential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

Certain PDF drivers will allow electronic "images" to remain. We recommend using AutoCad and 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 the EXACT same filename as the original submittal.** Do not change the filename when submitting an updated 'version' of your plans or supporting documents – the system tracks versioning automatically. See the chart A below.

Chart A

1 st Submittal Filename (Original)	Pages	2 nd , 3 rd , etc. Required Resubmittal Filename	Pages
Onsite Improvement Plans.pdf	10	Onsite Improvement Plans.pdf	10
Offsite Improvement Plans.pdf	3	Offsite Improvement Plans.pdf	5
Erosion and Sediment Control Plans.pdf	3	Erosion and Sediment Control Plans.pdf	3
Landscape Plans.pdf	8	Landscape Plans.pdf	8

The chart above shows the addition of two new pages to the *Offsite Improvement Plans.pdf*, with the added pages placed at the end of the set, as page 4-5.

Chart B

1 st Submittal Filename (Original)	Pages	2 nd , 3 rd , etc. Required Resubmittal Filename	Pages
S_Floor Plans.pdf	10	S_Floor Plans.pdf	10
F_Sprinkler Diagrams.pdf	3	F_Sprinkler Diagrams.pdf	5

The chart above shows the addition of two new pages to the *F_Sprinkler Diagrams.pdf*, with the added pages placed at the end of the set, as page 4-5.

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 a 4-page set of corrected grading plans in the same page order.

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

If submitting *new (additional)* plan sheet(s), plan sets or supplemental documents, 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, instead of excluding/deleting them, place a 'slash' across those pages in CAD, *mark them as 'Omit' and include the date they were omitted.*

Revisions to previously approved plans does not constitute a resubmittal. You must submit a brand new first review application. Provide the original tracking number for reference if available.

Why is page order important?

Resubmitting plans with the 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.

D. AutoCAD 2016 Compatibility Note:

AutoCAD 2016 includes a feature that automatically and by default converts any existing SHX font text within a CAD file into 'editable content/comment objects' when saving to PDF format. This results in a 'comment' being created for each and every SHX text object found.

Solution:

To ensure that PDFs created with AutoCAD 2016 (or LT) do not contain these editable objects, please install Service Pack 1 patches for AutoCAD 2016 (or LT) and then proceed to modify the AutoCAD's default settings per the instructions provided in the link below:

<https://forums.autodesk.com/t5/autocad-2013-2014-2015-2016-2017/autocad-2016-shx-text-as-comment-in-exported-pdf/td-p/5555583>

Once these changes have been made, create the PDFs for submittal for plan review following remaining submittal recommendations above.

Optionally, remove all SHX text from the CAD document and replace it with a True Type Font (TTF) text. After generating the PDF from CAD, open each documents using Adobe and do a 'File/Save As'.

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