- Stationery (Letterhead & Envelopes)
- Business Cards & Folding Cards
- Post Cards
- Brochures
- Flyers
- Rack Cards & 3-Year Calendars
- Trading Cards
- Labels
- Design Guide, Color Chart & Font List

Design Guide & Specifications

Letterhead & Envelope Specifications

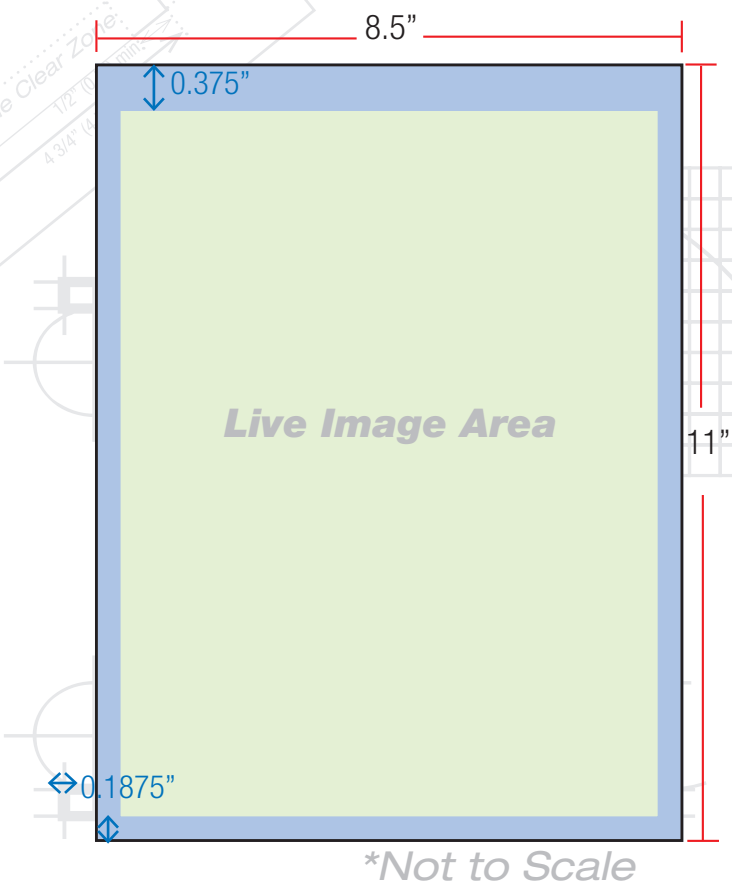
Please follow these specifications for designing a business card.

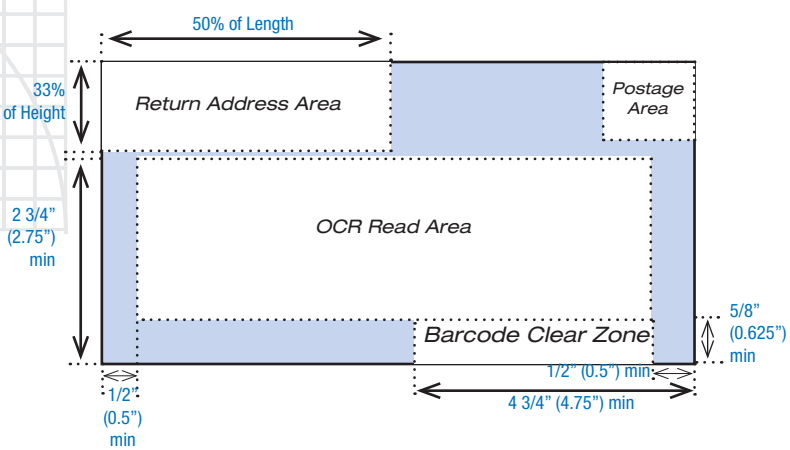
Letterhead

- **You must submit a PDF.** If it is not a PDF it will not be accepted as a press ready file.
- **Your PDF document should be 8.5” x 11”.** We currently do not offer bleeds on our letterhead.
- **Nothing should be closer than 0.187” from the edge of the document**. The exception to this is the top of the letterhead, which needs to be 3/8” (.375”) from the edge of the document. This includes frames and borders. This extra space is needed for the gripper on the printing press.
- **All images should be 300 dpi, or in a vector format.**
- **All artwork must be separated into One or two Spot Colors** (Depending upon the color option you choose when ordering) We cannot take a full color CMYK document as a press ready file, and other fees will be applied for conversion of the artwork. Please refer to our design guide for more details.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

Envelopes

- **You must submit a PDF.** If it is not a PDF it will not be accepted as a press ready file.
- **Your PDF document should be 4.125” x 9.5” for #10 envelopes and 3.875” x 8.875” for #9 envelopes.**
- **Your document should follow the diagram of the postal regulations below.** For more detailed information, please contact your local post office or visit www.usps.com .
- **All images should be 300 dpi, or in a vector format.**
- **All artwork must be separated into One or two Spot Colors** (Depending upon the color option you choose when ordering) We cannot take a full color CMYK document as a press ready file, and other fees will be applied for conversion of the artwork. Please refer to our design guide for more details.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**





Stationery

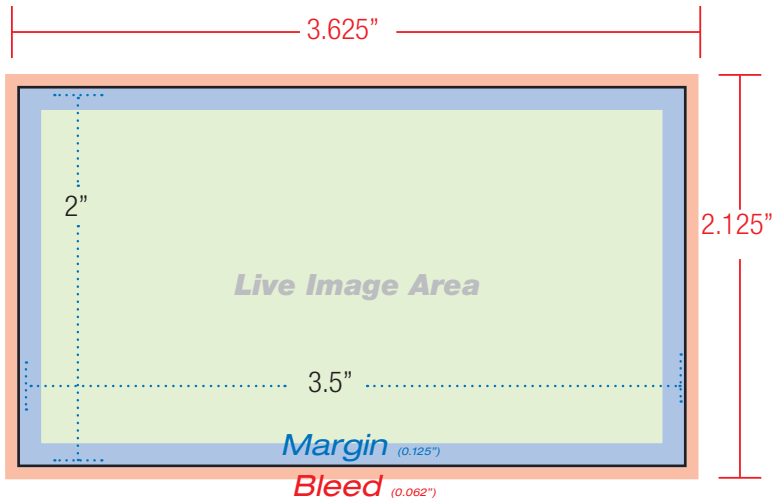
Business Card Specifications

Please follow these specifications for designing a business card.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as press ready. For more information refer to our pdf specifications. Double sided business cards need to be a two page pdf or two separate pdf documents. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- **Your PDF document should be 3.625" x 2.125".** This is the size of the document including bleed (3.5" x 2" + .062" bleed). For example a 8.5" x 11" PDF document with a 3.625" x 2.125" card positioned in the center would not meet specifications.
- **Nothing should be closer than 0.187" from the edge of the document**, unless it can be trimmed off. This includes frames and borders. This distance was calculated by adding the 1/16" for bleed plus 1/8" for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

Document Size

(Submit Press Ready File at This Size)



Card with guides

Finished card

Business Cards

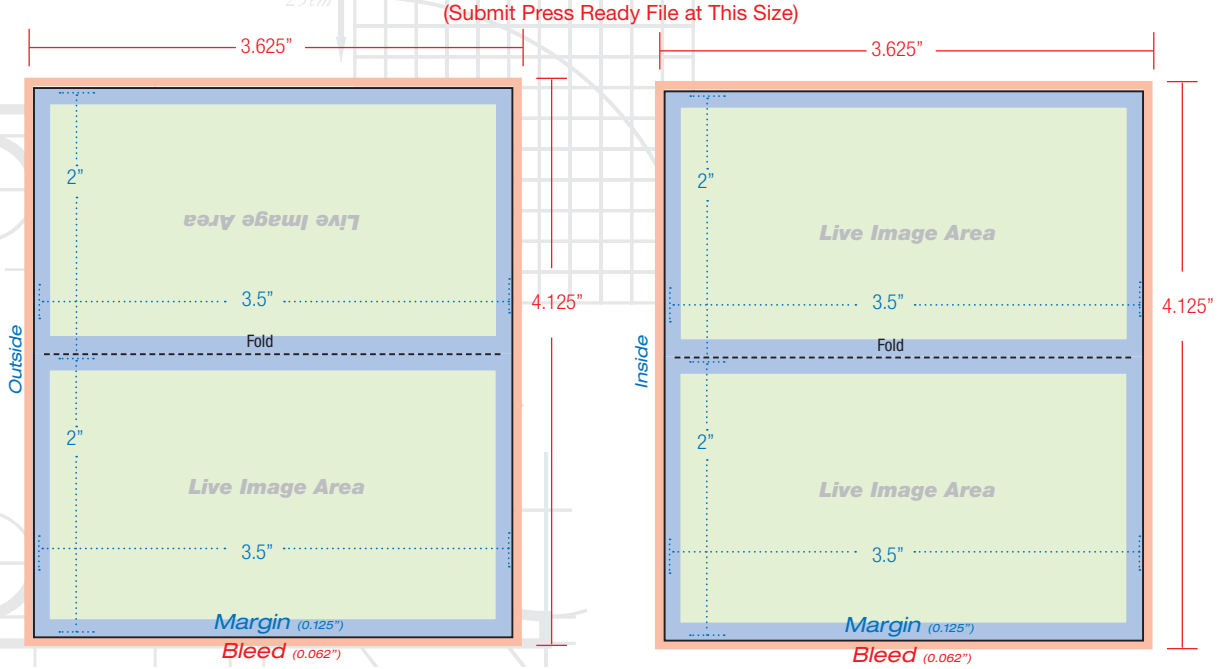
Folding (Tent) Card Specifications

Please follow these specifications for designing a folding business card.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. For more information refer to our pdf specifications. Double sided Folding cards need to be a two page pdf or two separate pdf documents. Please note that the font cover and the back cover of the folding card should be placed head-to-head within the PDF document. This will ensure that both sides will be right-side-up when the card is folded.
- **Your PDF document should be 3.625" x 4.125".** This is the size of the document including bleed. For example a 8.5" x 11" PDF document with a 3.625" x 4.125" card would not meet specifications.
- **Folding jobs will not be perfectly square.** There will me small amounts of skewing and drifting on any folding piece. Be sure to leave enough room in your margins to anticipate this as we will not be held responsible for mildly askew jobs.
- **Nothing should be closer than 0.187" from the edge of the document, unless it can be trimmed off.** This includes frames and borders. This distance was calculated by adding the 1/16" for bleed plus 1/8" for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

Document Size

(Submit Press Ready File at This Size)

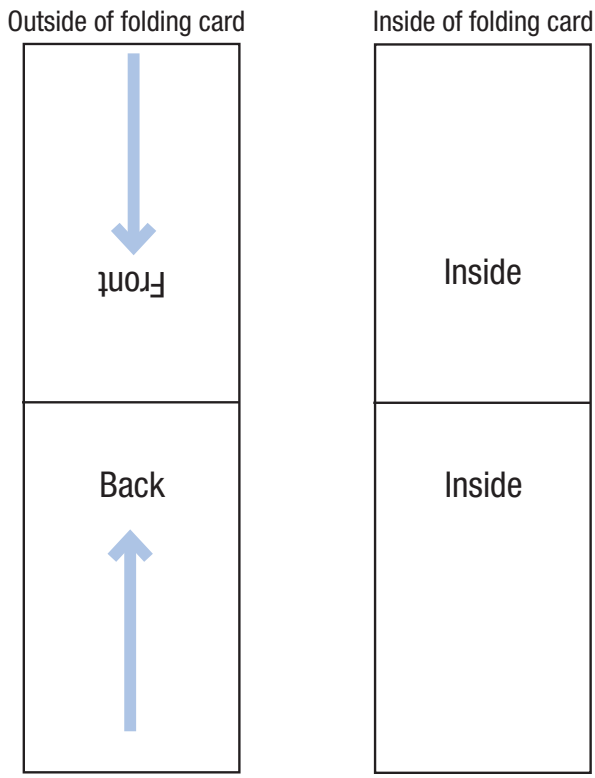


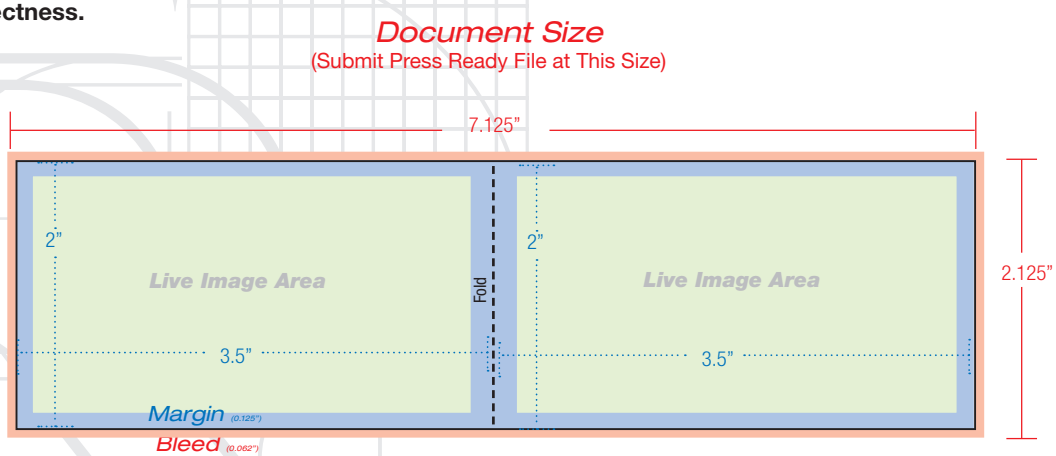
Folding Cards

Folding Card Specifications

Please follow these specifications for designing a 2" X 7" folding business card.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. For more information refer to our pdf specifications. Double sided Folding cards need to be a two page pdf or two separate pdf documents. Please note that the font cover and the back cover of the folding card should be placed head-to-head within the PDF document. This will ensure that both sides will be right-side-up when the card is folded.
- **Your PDF document should be 7.125" x 2.125".** This is the size of the document including bleed. For example a 8.5" x 11" PDF document with a 7.125" x 2.125" card would not meet specifications.
- **Folding jobs will not be perfectly square.** There will me small amounts of skewing and drifting on any folding piece. Be sure to leave enough room in your margins to anticipate this as we will not be held responsible for mildly askew jobs.
- **Nothing should be closer than 0.187" from the edge of the document, unless it can be trimmed off.** This includes frames and borders. This distance was calculated by adding the 1/16" for bleed plus 1/8" for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**



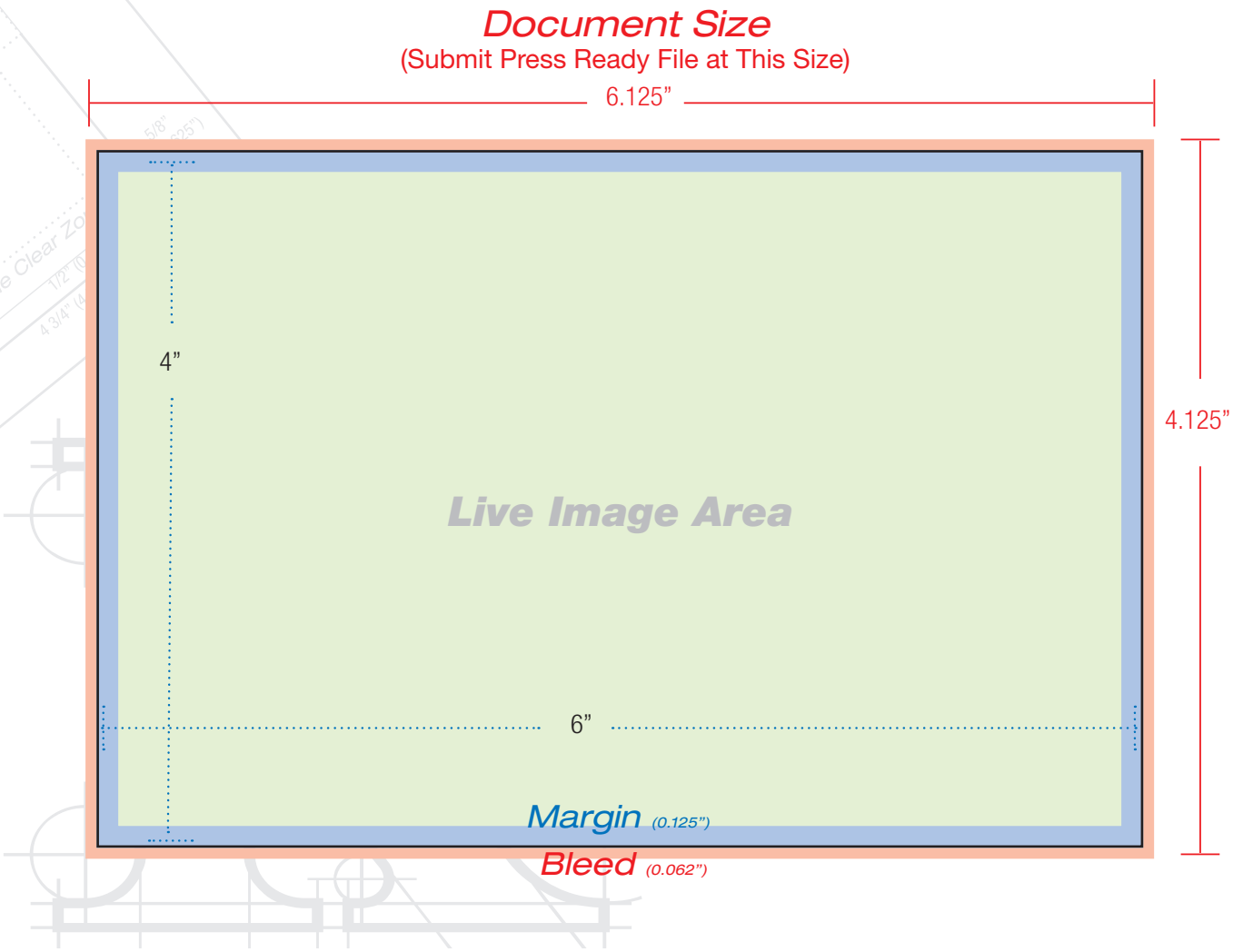


Folding Cards

Post Card Specifications (4”X6”)

Please follow these specifications for designing a 4X6 post card.

- You must submit a PDF. If it is not a PDF, it will not be accepted as a press ready file. For more information refer to our pdf specifications. Double sided post cards need to be a two page pdf or two separate pdf documents clearly labeled in a manner that groups them together. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- Your PDF document should be 6.125” x 4.125”. This is the size of the document including bleed (6” x 4” + 0.062” bleed).
- Nothing should be closer than 0.187” from the edge of the document, unless it can be cut off. This includes frames and borders. This distance was calculated by adding the 1/16” for bleed plus 1/8” for distance from the actual edge of the page after trimming.
- Framed postcards are not suggested. We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- Ink coverage should not exceed 220%. This means the CMYK values of a particular color added together should not exceed 220%.
- All fonts are embedded in the document.
- Always view your PDF before sending to ensure correctness.

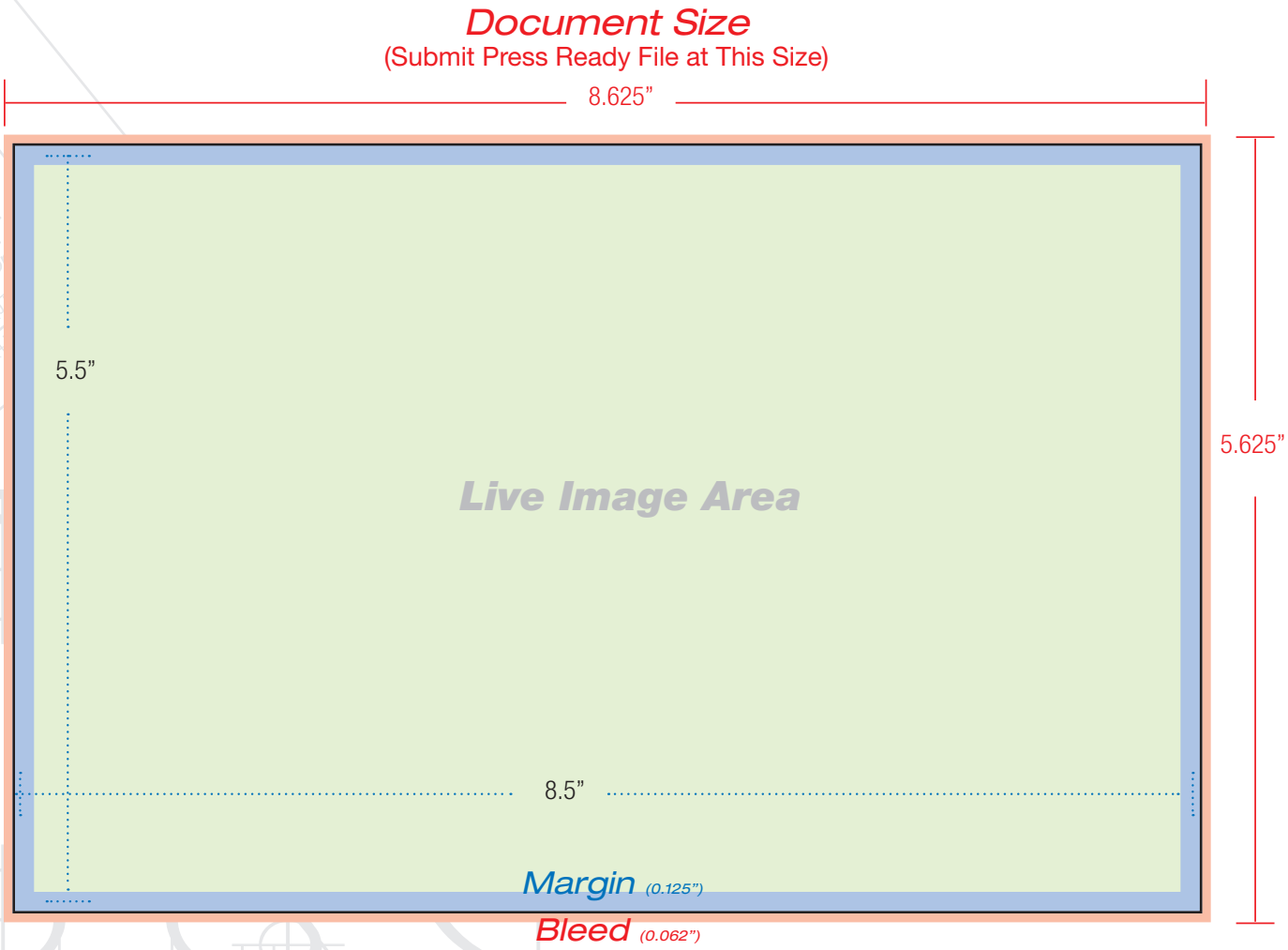


Post Cards

Post Card Specifications (8.5” X 5.5”)

Please follow these specifications for designing a 8.5X5.5 post card.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. Double sided post cards need to be a two page pdf or two separate pdf documents clearly labeled in a manner that groups them together. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- **Your PDF document should be 8.625” x 5.625”.** This is the size of the document including bleed. For example a 8.5” x 11” PDF document with a 8.625” x 5.625” card positioned in the center would not meet specifications.
- **Nothing should be closer than 0.187” from the edge of the document**, unless it can be trimmed off. This includes frames and borders. This distance was calculated by adding the 1/16” for bleed plus 1/8” for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

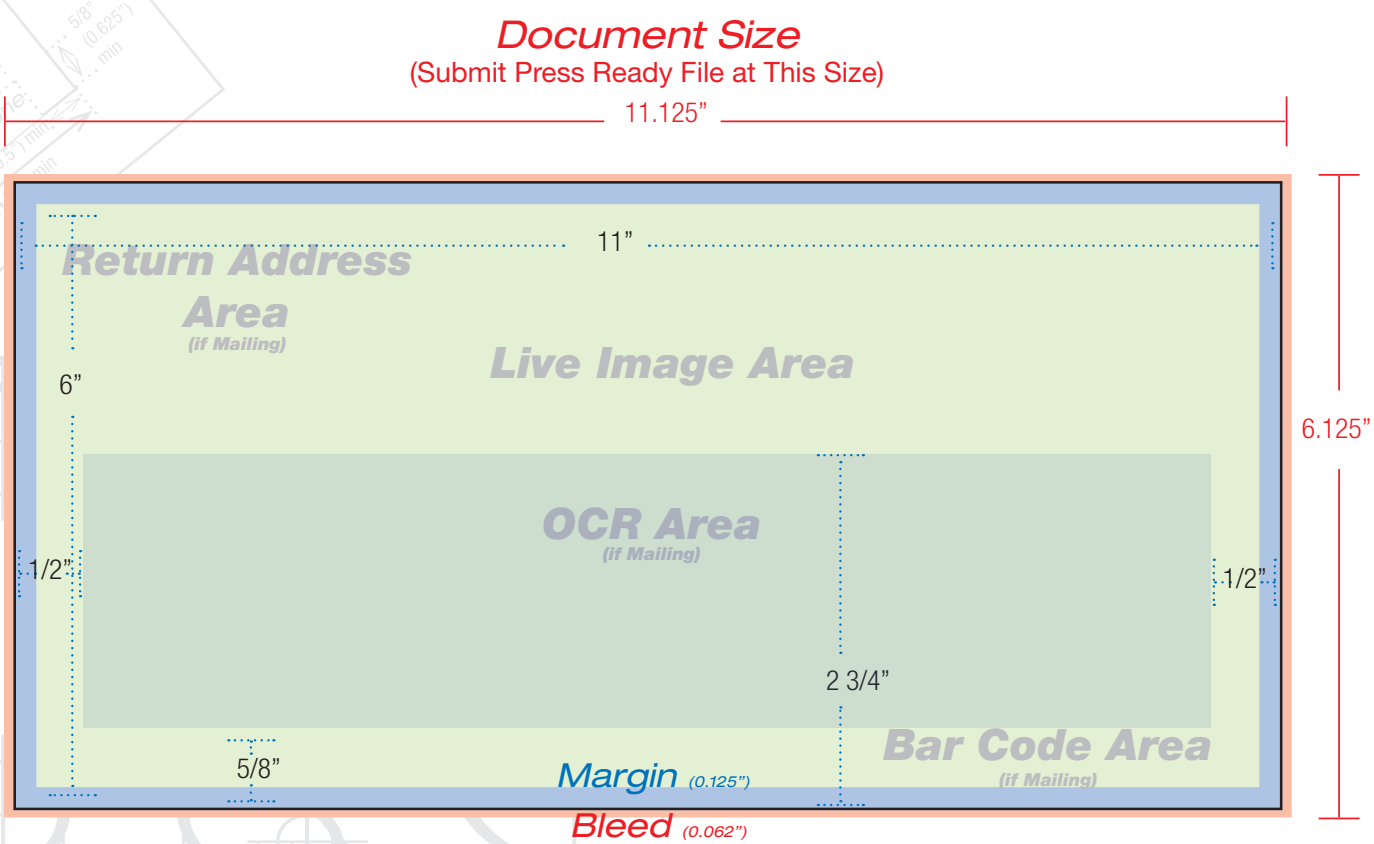


Post Card Specifications (11” X 6”)

Please follow these specifications for designing a 11X6 post card.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. Double sided post cards need to be a two page pdf or two separate pdf documents clearly labeled in a manner that groups them together. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- **Your PDF document should be 11.125” x 6.125”.** This is the size of the document including bleed. For example a 11” x 6” PDF document with a 11.125” x 6.125” card positioned in the center would not meet specifications.
- **Nothing should be closer than 0.187” from the edge of the document**, unless it can be trimmed off. This includes frames and borders. This distance was calculated by adding the 1/16” for bleed plus 1/8” for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**
- **A NOTE ON USPS MAILING SPECIFICATIONS:**

  The mailing address for the piece should reside in the OCR area of the card (between 5/8” and 2 3/4” from the bottom of the card) and should be kept clear of design elements. For more information and services please visit https://www.usps.com

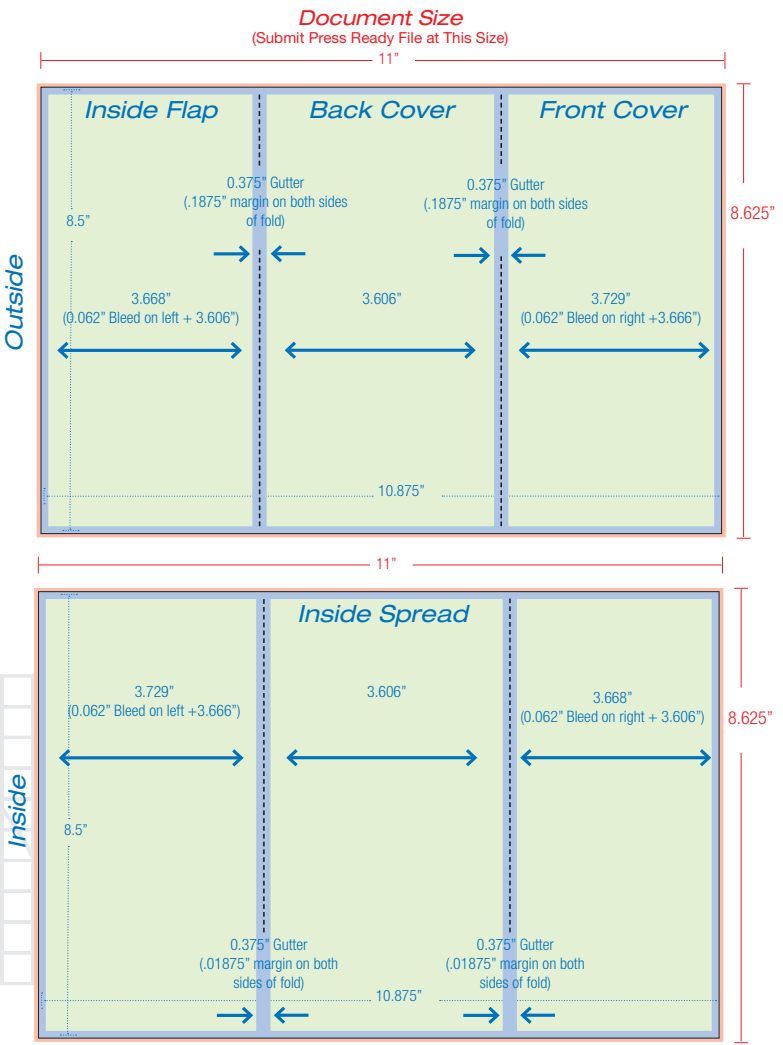


Post Cards

Brochure Specifications

Please follow these specifications for designing a tri-fold brochure.

- **You must submit a PDF.** If it is not a PDF it will not be accepted as a press ready file. For more information refer to our pdf specifications.
- **Your PDF file should be 11” x 8.625”.** This is the size of the document including bleed. Double sided brochures need to be a two page pdf or two separate pdf documents clearly labeled in a manner that groups them together.
- **No text should be closer than 0.187” from the edge of the document.** This distance was calculated by adding the 1/16” for bleed plus 1/8” for distance from the actual edge of the page after trimming.
- **Framed brochures are not suggested.** We cannot guarantee even boarders.
- **Folding jobs will not be perfectly square.** There will me small amounts of skewing and drifting on any folding piece. Be sure to leave enough room in your margins to anticipate this as we will not be held responsible for mildly askew jobs.
- **A minimum of 1/8” should be left on both sides of the folds.** Note that all three panels are not the same size.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%. This means the CMYK values of a particular color added together should not exceed 220%.**
- **All fonts are embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

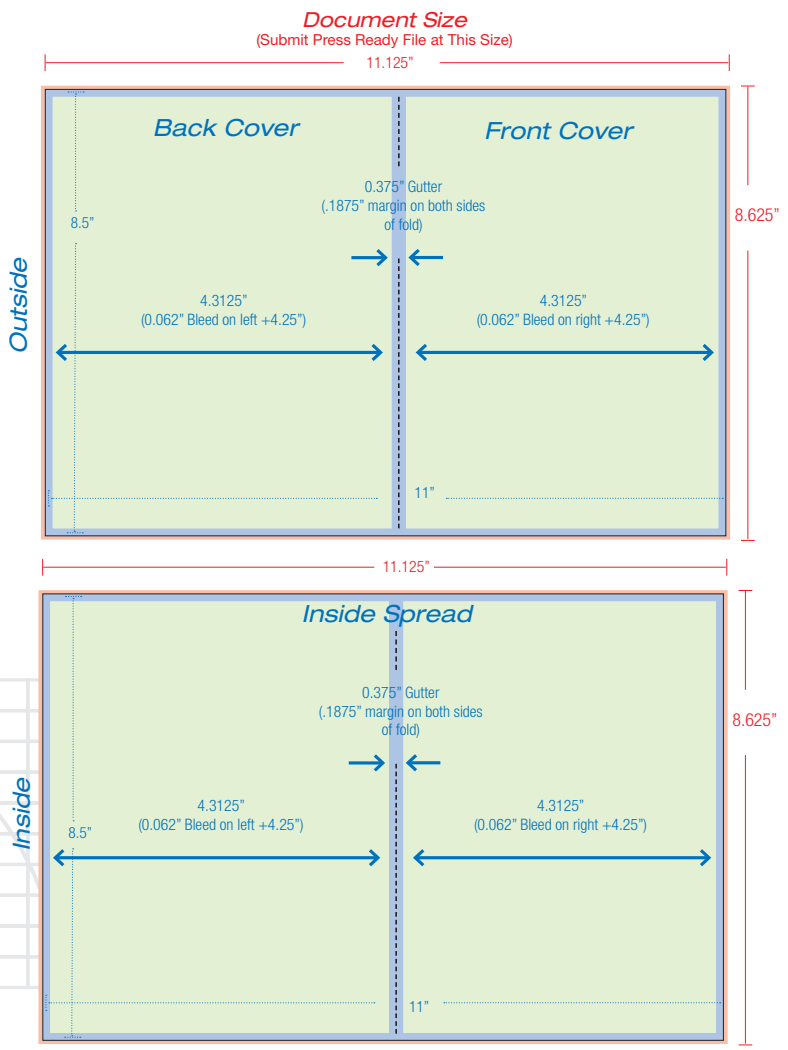


Brochures

Brochure Specifications (Bi-Fold)

Please follow these specifications for designing a bi-fold brochure.

- **You must submit a PDF.** If it is not a PDF it will not be accepted as a press ready file. For more information refer to our pdf specifications.
- **Your PDF file should be 11.125” x 8.625”.** This is the size of the document including bleed. Double sided brochures need to be a two page pdf or two separate pdf documents clearly labeled in a manner that groups them together.
- **No text should be closer than 0.187” from the edge of the document.** This distance was calculated by adding the 1/16” for bleed plus 1/8” for distance from the actual edge of the page after trimming.
- **Framed brochures are not suggested.** We cannot guarantee even boarders.
- **Folding jobs will not be perfectly square.** There will me small amounts of skewing and drifting on any folding piece. Be sure to leave enough room in your margins to anticipate this as we will not be held responsible for mildly askew jobs.
- **A minimum of 1/8” should be left on both sides of the fold.**
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%. This means the CMYK values of a particular color added together should not exceed 220%.**
- **All fonts are embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

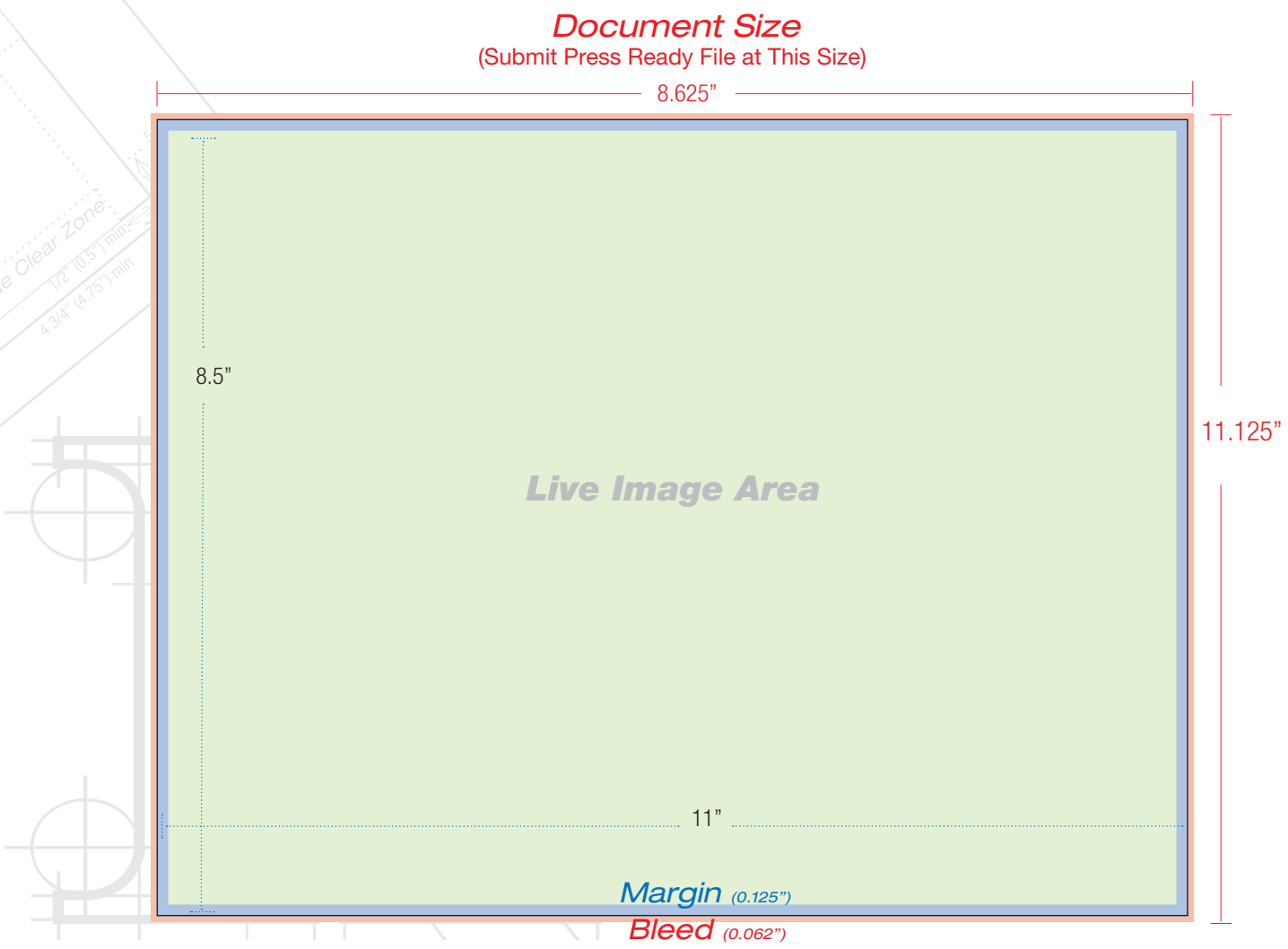


Brochures

Flyer Specifications

Please follow these specifications for designing a 8.5 X 11 flyer.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. For more information refer to our pdf specifications. Double sided business cards need to be a two page pdf or two separate pdf documents. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- **Your PDF document should be 8.625" x 11.125".** This is the size of the document including bleed. For example a 8.5" X 11" document would not meet specifications even if the document does not bleed.
- **Nothing should be closer than 0.187" from the edge of the document**, unless it can be trimmed off. This includes frames and borders. This distance was calculated by adding the 1/16" for bleed plus 1/8" for distance from the actual edge of the page after trimming.
- **Framed flyers are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

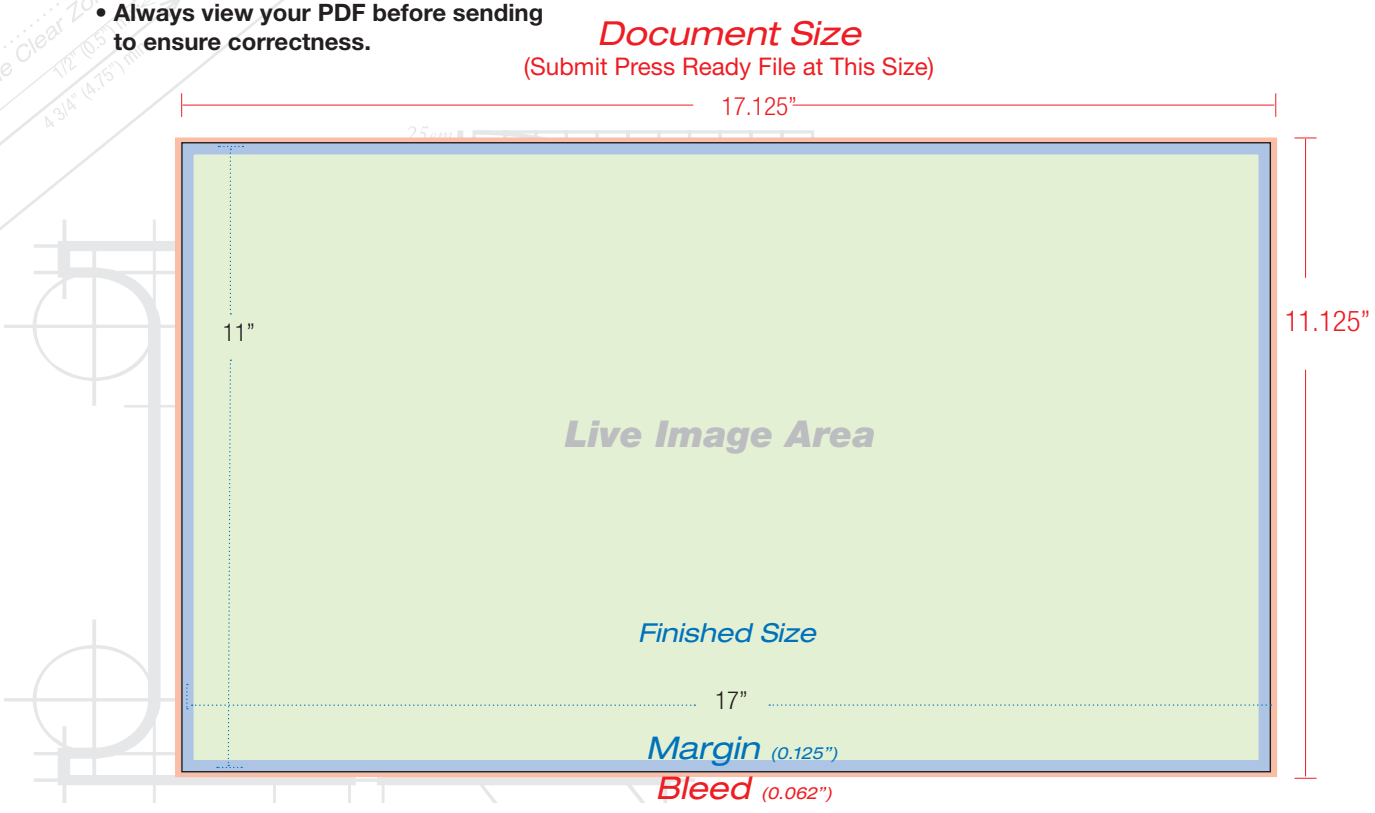


Flyers

11” X 17” Flyer Specifications

Please follow these specifications for designing a 11X17 Flyer.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. For more information refer to our pdf specifications. Double sided business cards need to be a two page pdf or two separate pdf documents. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- **Your PDF document should be 11.125” x 17.125”.** This is the size of the document including bleed. For example a 11” X 17” document would not meet specifications even if the document does not bleed.
- **Nothing should be closer than 0.187” from the edge of the document**, unless it can be trimmed off. This includes frames and borders. This distance was calculated by adding the 1/16” for bleed plus 1/8” for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

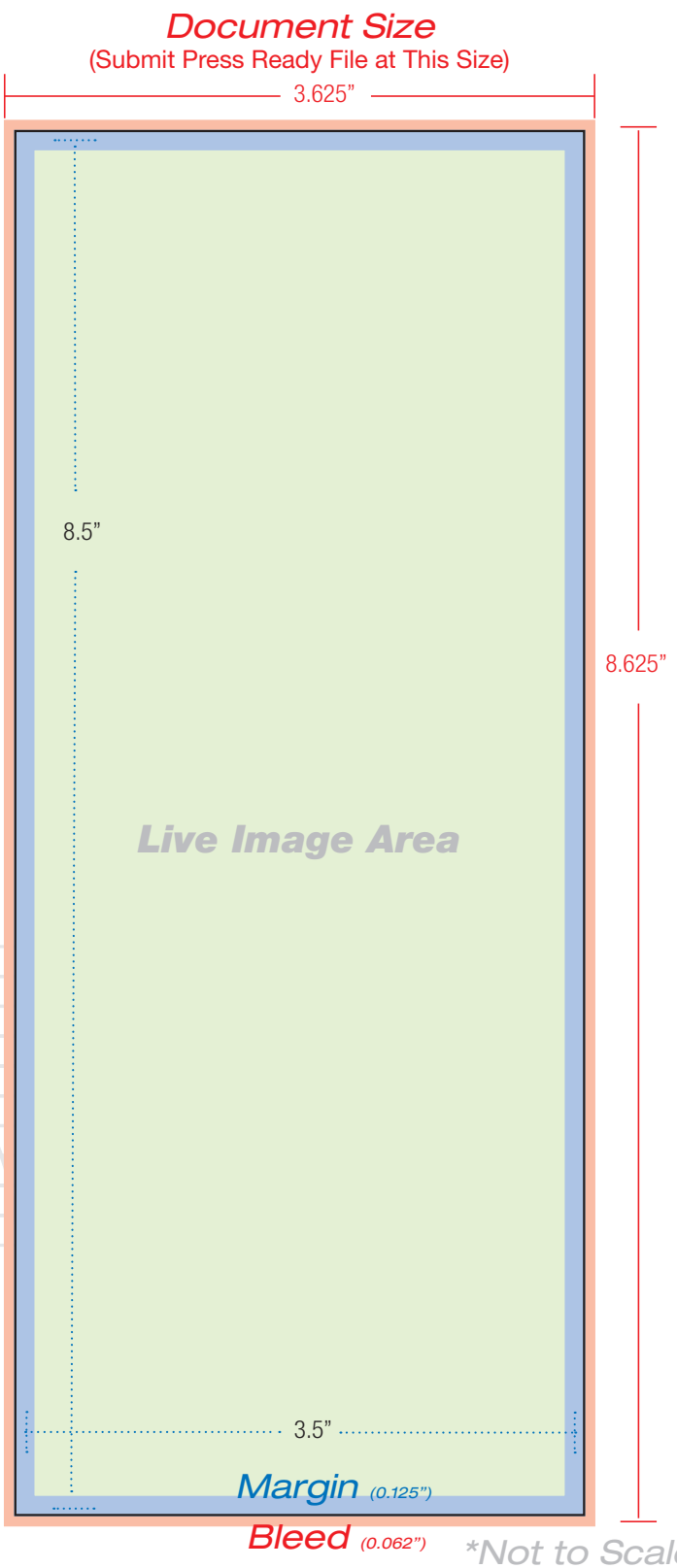


Flyers

3.5” X 8.5” Rack Card Specifications

Please follow these specifications for designing a 3.5 X 8.5 rack card.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. For more information refer to our pdf specifications. Double sided business cards need to be a two page pdf or two separate pdf documents. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- **Your PDF document should be 3.625” x 8.625”.** This is the size of the document including a 0.062” bleed. For example a 8.5” x 11” PDF document with a 3.625” x 8.625” card positioned in the center would not meet specifications.
- **Nothing should be closer than 0.187” from the edge of the document**, unless it can be trimmed off. This includes frames and borders. This distance was calculated by adding the 1/16” for bleed plus 1/8” for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

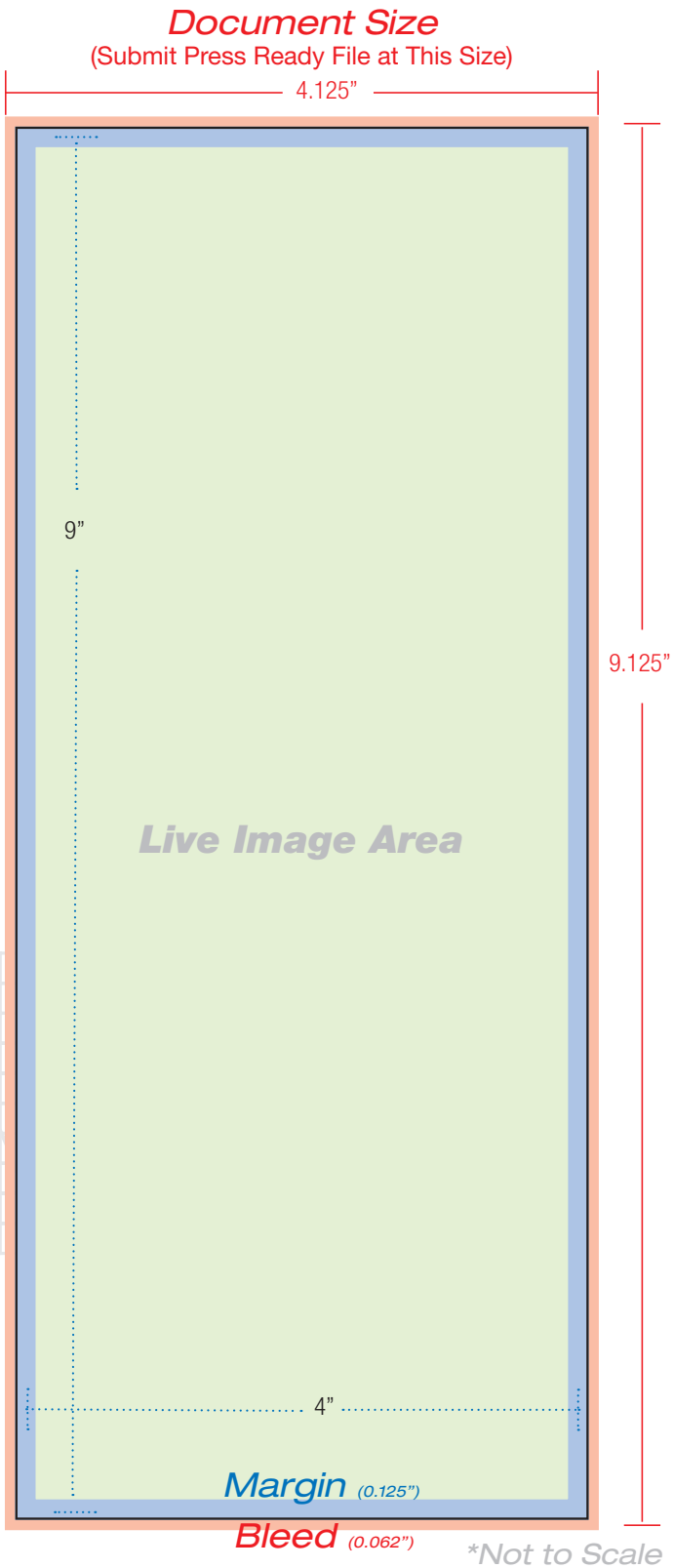


Rack Cards

4” X 9” Rack Card Specifications

Please follow these specifications for designing a 4 X 9 rack card.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. For more information refer to our pdf specifications. Double sided business cards need to be a two page pdf or two separate pdf documents. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- **Your PDF document should be 4.125” x 9.125”.** This is the size of the document including bleed (4 “x 9” + 0.062” bleed). For example a 8.5” x 11” PDF document with a 4.125” x 9.125” card positioned in the center would not meet specifications.
- **Nothing should be closer than 0.187” from the edge of the document**, unless it can be trimmed off. This includes frames and borders. This distance was calculated by adding the 1/16” for bleed plus 1/8” for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**



Rack Cards

3-Year Calendar Specifications

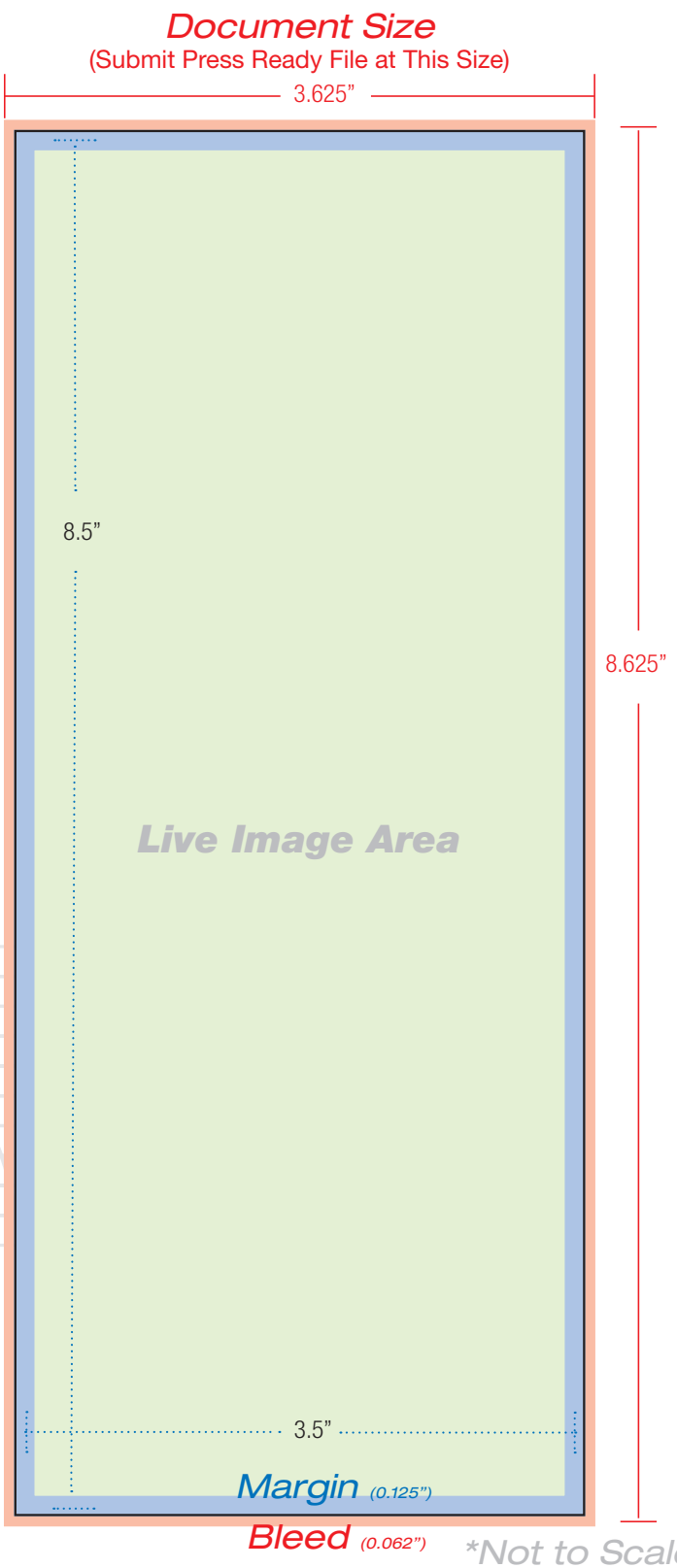
Please follow these specifications for designing a 3.5 X 8.5 Calendar.

FOR PRESS READY FILES

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. For more information refer to our pdf specifications. Double sided business cards need to be a two page pdf or two separate pdf documents. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- **Your PDF document should be 3.625" x 8.625".** This is the size of the document including a 0.062" bleed. For example a 8.5" x 11" PDF document with a 3.625" x8.625" card positioned in the center would not meet specifications.
- **Nothing should be closer than 0.187" from the edge of the document**, unless it can be trimmed off. This includes frames and borders. This distance was calculated by adding the 1/16" for bleed plus 1/8" for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

FOR IMPRINT INFORMATION

- **The imprint are on our calendar template is 1X2.625 (the same size as our smaller label)**
- **PDF or EPS files of finished artwork are preferred, but we will also take JPEG, TIFF, PNG, PSD, AI or BMP files.**
- **Background colors will be left as-is, so if you wish to have the background transparent, be sure to leave it that way on the file that you submit.**
- **Area that is provided does not require bleeds.**

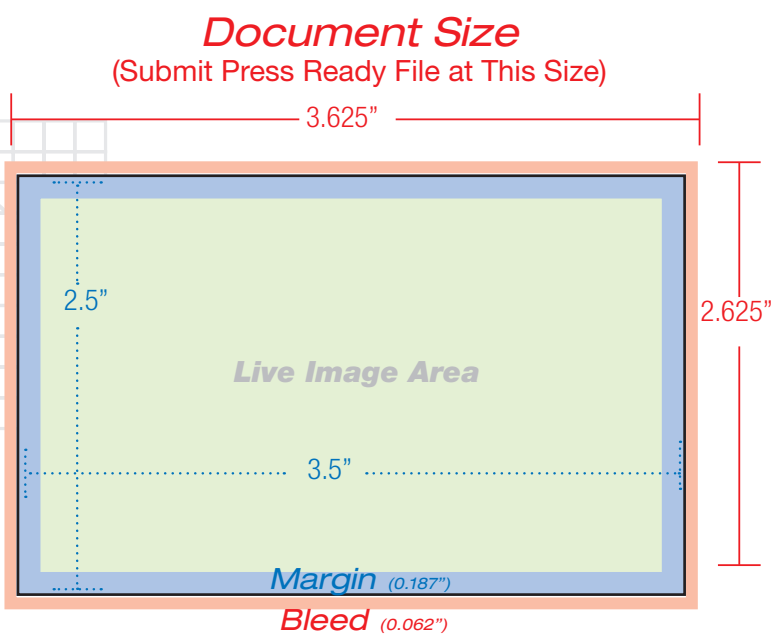


3-Year Calendar

Trading Card Specifications

Please follow these specifications for designing a trading card.

- **You must submit a PDF.** If it is not a PDF, it will not be accepted as a press ready file. For more information refer to our pdf specifications. Double sided business cards need to be a two page pdf or two separate pdf documents. If you have any questions as to how the front and back of your documents should back up, please refer to the Rotation Guide at the back of these specifications.
- **Your PDF document should be 3.625" x 2.625".** This is the size of the document including bleed. For example a 8.5" x 11" PDF document with a 3.625" x 2.625" card positioned in the center would not meet specifications.
- **Nothing should be closer than 0.187" from the edge of the document**, unless it can be trimmed off. This includes frames and borders. This distance was calculated by adding the 1/16" for bleed plus 1/8" for distance from the actual edge of the page after trimming.
- **Framed cards are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**

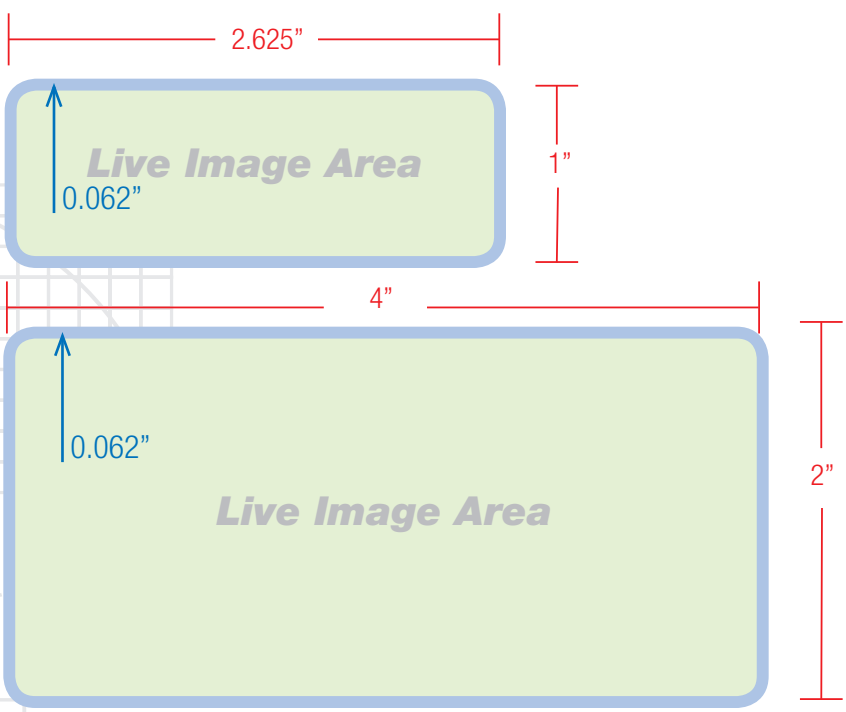


Trading Cards

Label Specifications

Please follow these specifications for designing a 1" X 2.625" or 2" X 4" label.

- **You must submit a PDF.** If it is not a PDF it will not be accepted as a press ready file. For more information refer to our pdf specifications.
- **Your PDF document should be either 1" x 2.625" or 2" x 4".** For example a 8.5" x 11" PDF document with a 3.625" x 2.125" card positioned in the center would not meet specifications. Our labels do not technically bleed, but will be aligned to the best of our ability when printed on the label sheets.
- **Nothing should be closer than 0.062" from the edge of the document**, unless it can be trimmed off. This includes frames and borders.
- **Framed labels are not suggested.** We cannot guarantee even borders.
- **All images should be 300 dpi at size or in a vector format.**
- **All images should be in CMYK color.**
- **Ink coverage should not exceed 220%.** This means the CMYK values of a particular color added together should not exceed 220%.
- **All fonts must be embedded in the document.**
- **Always view your PDF before sending to ensure correctness.**



Finishing Guide

While we do strive to keep our processes and requirements as simple as possible, there are still some things that need to be kept in mind as you design press ready pieces to be printed with us. The following guides will attempt to answer some of the more common questions that you may have about our processes, and about printing in general.

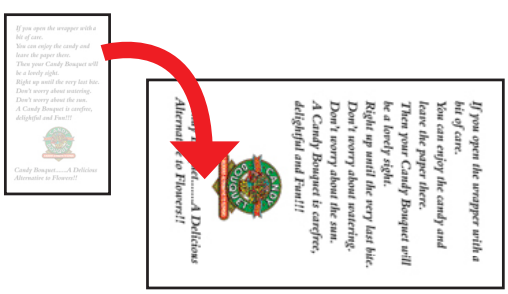
Rotating Double Sided Cards

When designing non-landscape oriented pieces, that are double sided please keep the following in mind:

Front

Fig.1

Back



For double sided portrait cards you can either leave the document as-is if both sides are vertical (our system will take care of rotating it for you), or rotate both sides of the card 90° (Clockwise for side A, counter clockwise for side B), so that the both sides of the card are positioned in landscape format. Please take a look at Fig. 1 for clarity. You cannot have one side of the card vertical and the other horizontal or the card will not back up properly.

UV Coating

When UV Coating a double sided product, please keep in mind that by default only the front side (Page 1 of the PDF, if uploading a 2 Page PDF) will be the side UV Coated.

Rounded Corners

When you choose rounded corners, we will round all four corners of the card. If you follow the templates that are put forth in this specifications manual, your text and images will not run any risk of being inadvertently trimmed off.

Digital Color

The way that color is defined within a digital document can vary greatly depending upon how the file is ultimately output. Whether the file is meant to be displayed upon a computer monitor or printed piece, the manner which the color data is stored needs to be tailored to fit the intended output. There are several different colorspaces that are used by designers, each of them with a specific purpose, each having specific strengths and weaknesses. The following article will give a brief summary of each to help you understand their specific applications.

Colors Spaces

A colorspace is the manner which digital color data is stored. The breadth of colors that are possible in a given colorspace is called a "gamut."

RGB Colorspace

RGB stands for "Red, Green & Blue." This colorspace is designed for output on display devices that use light to display color, such as televisions, computer monitors and projectors. By combining different wavelengths of red green and blue light, specific colors are created. Digitally, these wavelengths are broken down into values for these three colors ranging from 0 to 255. RGB is an additive color process, meaning that colors are added together to make pure white light. So, when the values of an RGB pixel (a pixel is a unit of color that makes up an image in a digital file) are at their maximum values (Red= 255, G= 255, Blue= 255) you get a pure white pixel.

RGB has a very large color gamut, meaning that the amount of colors that are possible when using this colorspace is very large with the exception that it can sometimes be deficient in displaying colors in the yellow color range. It is the default for digital cameras and video capture devices.

Source files for projects should be stored in this format as the color information that is stored within this file type is greater than that of CMYK. This will make it more useful if some sort of photo editing or manipulation is required in the future.

Often times, these files can have more information than is immediately evident. This information can be brought out by using professional editing software. For instance, an image from a digital camera is taken in a poorly lit room. The underexposed photo may seem to be too dark to use in your printed piece. However, with a little work, the image might be able to be saved by doing some color correction.

LAB Color

Stands for "Lightness," "A Channel," and "B Channel." Used mostly for color correction, this colorspace has the largest color gamut. However, it is not meant for any sort of output device, and will cause issues for most printing devices. This colorspace is not recommended for use, unless you are a professional.

Grayscale Color

This type of colorspace defines an image as tones of a single color (black). This should be used if a file is to be printed as black and white or a spot color.

CMYK Colorspace

Stands for “Cyan,” “Magenta.” Yellow” and “Key (Black)” Designed specifically for use in printed media, this colorspace offers the smallest color gamut, and thusly should only be used when you are ready to send something to your printer. When you convert a file to CMYK and then back to LAB or RGB, you WILL NOT GAIN THE INFORMATION BACK. That is why CMYK should not be used for storage of your digital files; information captured initially in the file may be lost.

CMYK is a subtractive process, meaning that you subtract color to make pure “white”. White is in quotes because “white” will be the color of the substrate that you are printing on, regardless of how it is displayed on the screen. Keep this in mind when designing for a non-white stock.

Image Files

Digital files can come in many “flavors” (for more information on what sort of file types are available, and which ones might work best for what you are trying to do, visit http://tbbsolutions.com/sales_File_Types.php) but all of them work of the same basic principal: Images are made up of individual units of color called “pixels.” The number of pixels in a given image is the images “resolution.” Resolution can be referred to as DPI (Dots Per Inch. Usually used for printing) or PPI (Pixels per Inch. Used for computer display purposes.) These terms are often used interchangeably. For printing purposes, an image should be made up of CMYK pixels at no less than a 300 Pixel per Inch resolution. If the resolution is too low, the individual pixels that make up the image need to be enlarged to compensate for the ones that are missing. The result is that the image will become blocky when it is printed.

Often times image files can be very large if the resolution and the dimensions are high. To make these files more manageable, programs will often use image compression techniques to make the file size of the image smaller. The problem with this is that some compression techniques are “lossy.” This means that in order to make the file smaller, some of the image information and fidelity had to be sacrificed. When compression is low, this is hard to notice. As the level of compression grows, so do the number of noticeable visual artifacts. The image will become more and more “blotchy” as it loses more and more information. This is a common problem for images that are found on the internet, and is why we recommend not using them.

The Printing Process

Offset Printing

Until recently, the basics of printing had changed little in the past several hundred years. Based on the principal of Offset Lithography (offset for short) images of different colors are placed over one another to produce an image. When a process of 4 colors, consisting of Cyan, Magenta, Yellow and Black, are used, it becomes possible to reproduce images of near photographic quality. Each of these colors, however, had to be etched on to separate “plates” and attached to the printing press.

The down side of offset lithography is that is takes a good amount of setup to get the plates ready, which can be costly, and plates are often times not reusable, which can also add to the cost. The upside is that when these plates are set up, and the press is ready to go, you can run large quantities of identical copies very quickly. This is why small quantities of printing can be very expensive per unit, but can get progressively cheaper the higher the quantity.

Digital Printing

Digital presses use individually charged particles of toner (usually latex or wax based) or ink to produce images on paper. These charged particles are attracted to a transfer belt to lay an image down. The image is then transferred on to the paper, and is fused on to it using a heat process. With the introduction of digital presses, a new paradigm has emerged in the printing industry. Since the each image is formed individually on the fly, short run, low cost printing has become available. The down sides to this technology are it's substrate limitations (Some materials cannot be printed upon with this process) speed, imaging area (Usually much smaller that comparable offset solutions) and a lack of a price break for large quantities since you are always paying the same amount per image. Also, most digital presses are limited to printing in process colors, and are not capable of printing spot colors.

Process Color Printing

Four color Process printing (Often called simply "Process" or "4 Color" Printing) uses varying shades of Cyan, Magenta, Yellow and Black in conjunction with one another to create all the colors available in the CMYK gamut. While this a great way to reproduce color photographs, it can be less than optimal for achieving consistent, solid colors over a run or over multiple runs. Color shifts can occur between printings of specific pieces, and often the same CMYK value can print differently between different presses and processes. If exact color matches and consistency are a must, it may be more useful to use a spot color.

Spot Colors

Spot colors are pre-defined, pre-mixed colors that are used to ensure that a color can stay consistent between different runs and different printers. The most common spot colors are Pantone® or PMS colors (PMS stands for Pantone® Matching System) These colors are defined as numbers that are universally known via swatch books that give a consistent visual representation of the way the colors look. Spot colors can be used separately from 4 color printing, or can be used in conjunction with it.

When artwork is designed to be printed in spot colors, the file must have each of the spot colors in it's own separate channel within the document. These "separations" will each have their own plate that will be created when the job goes to press. It is very important that your artwork separates correctly into only the separations that will be involved with the final printing of the job. If there are more colors spec if iced within the file, each of those colors will get it's own separation, causing the job not to print correctly. If a process color is defined within the document another FOUR separations will be created; one each of the C, Y, M & K values.

Be careful when deriving process colors from spot/Pantone® colors, as some spot colors can lie outside of the CMYK gamut. This means that there is no way to reproduce these colors exactly using only process colors.

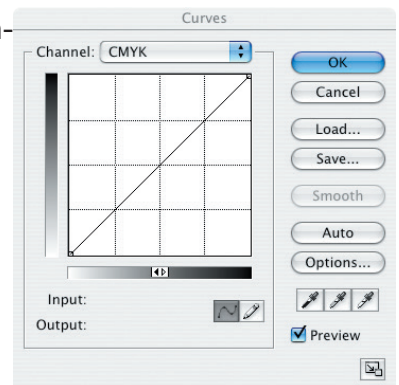
Color Correction

Color correction can be one of the most difficult and subtle of all the processes in design. If you have a digital photo that has been taken by a digital camera, you stand the best chance of getting good results (unless of course you have a professional photo that has been scanned by a high end scanner) Often time traditional photos that have been scanned by consumer scanners can have some pretty radical shifts in color and/or brightness, specifically they usually turn out dark and red. This can become even worse when glossy textured paper is used, as it can interfere with how the scanner perceives the lights and darks of the photo.

Note: This primer assumes that you are color correcting a CMYK digital file. For more information on CMYK Colorspace, please see the previous section: CMYK Colorspace

At its' base, color correction seems like a simple process; if it looks dark, lighten it (reminder: often times things will print darker than they appear on the screen. Among other things this can be due to the fact that a computer monitor is a additive light process (and a press is an subtractive ink process since the screen projects light to make the colors on the screen, it often represents colors as being lighter than they are represented on paper. So, going a little "light" on the color is often not a bad idea.) If the photo looks too red, take a little yellow and magenta out of it. Too purple? Take some cyan and magenta out of it. Just think back to the color wheels that you made in grade school, they actually do come in handy. Also, you can use our color chart to help you see how different colors are created. Try to think of what the colors are that make up the over-saturated color and compensate for it. Color correcting though is usually a subtractive process, meaning that it's usually better to take out a little of a color that seems too strong in the photo than it is to add a little of the opposite. This can make the photo look too heavy. While this is a good rule of thumb, each photo has to be played with on it's own. To make matters worse, there can be a great deal of variation between how an image is displayed on one screen as compared to another. If you have a couple samples of printed pieces that you have printed with us, be sure to use them as a frame of reference. It may be that your screen displays colors a little darker or a little more red than when it's printed. Perhaps colors on your screen are a little more washed out or less vibrant. These are things to look for and keep in mind as you are adjusting the colors on screen.

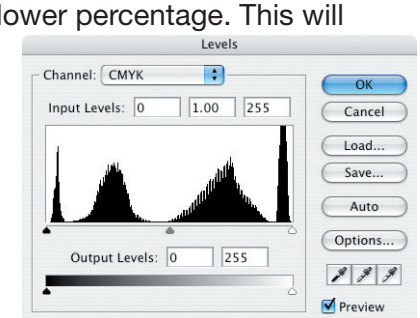
Techniques for changing the color in Photoshop.



There are three main techniques for adjusting the color of a photo. Generally, they all do about the same thing (except for LAB color but we'll get back to it in a minute.) So, it's mostly just a matter of what your preference is, and what you want to achieve.

1. Curves
2. Levels
3. LAB Color

1. Curves are best used for wide sweeping color adjustments in the mid-tones of photos. For instance: if you have an outside scene where the darks of the photos are right, and the light areas seem fine but the mid-tones seem muddled and have very little contrast, use curves. You can take the center of the curve and drag it down to take the CMYK levels to a lower percentage. This will lighten the photo in the mid-tones, but leave the other ends alone, and do so in a way where the color values slope in a more natural way. This can be done for individual channels of color as well. It can also be used to give flat looking photos more contrast. Simply take the front of the curve and move it down towards the bottom, and bring the curve up at the top, making an "S" shape. Be careful though: a little goes a long ways.



2. Levels can be used to take care of small shifts in all or individual colors, specifically on the high and low ends. If something seems too dark, bringing the bottom level up can take out a good portion murkiness. Shifting the mid-tones of a photo can also lighten it up a great deal as well as bringing down the top levels. Be careful though; shifting the bottom levels can very easily "blow out" the photo, while shifting the top levels can make your blacks seem very weak.

3. LAB color works a little differently. When you work in LAB color, it will change color mode of the entire document so, make sure you set the mode back to CMYK or RGB when you are done. While there you will see that both the curves and levels menus look a little different: No longer is anything set up in individual colors, now there is only L (Lightness) A (A channel) and B (B Channel). Lightness is just that; the lightness of the photo. You can use this to adjust the brightness of the photo. A Channel handles red and green, while B Channel handles Yellow and Blue. I use this for when there is a photo that seems to be shifted in one particular color. If there is a green "tinge" to a photo you can use the LAB channels to compensate for it by moving it towards the red end of the spectrum, etc.

All of the techniques described here will really get you nowhere without experimenting to see what works for you. You will most likely find a technique that works for you and end up using it 85% of the time. One final thing to remember is that if you try to correct something that needs a lot of adjustment, make sure to walk away from it from time to time to get a fresh pair of eyes. Often times, even though the photo may look "better" if you come back to it later you will find that the colors still aren't quite right.

If you want more info, there are many books on the subject and are available at your local book store.

PDF Files

The Portable Document File (or PDF for short) is the standard file type used by the printing industry to transport finished artwork and press ready files. These non-editable files take all the constituent parts of a print job (Fonts, Layout, Images, Color Profiles, User Information, Instructions, etc.) and bring them all together in one, universally accepted file. These files are usually relatively small to make them easy to transfer to your print shop. To ensure that your files give you the right result each time that you print them, please make sure that the following steps are taken.

Embedding Fonts

Always be sure to embed your fonts. Embedding fonts takes whatever font sets that you are using in your document and copies them into the PDF. This ensures that type displays and flows consistently from one computer to the next. Often times, there can be many cuts of a specific font, so even though you have a font on your system that has the same name as the font on another computer that is sending you the file, the two of them make have some subtle, and not so subtle, differences.

Convert Your File to CMYK

As we discussed in previous sections, the CMYK colorspace can be limited in what colors it can display and reproduce. This makes it important to make sure that you send out PDFs in CMYK format. Though you will be losing some information, you will be able to see exactly how it will effect the images within your document. Since the CMYK colorspace is smaller than RGB, there may be some colors in your image that will not reproduce well when converted to CMYK. If you convert your images before you send the file out, you can identify the problem areas, and correct the color before printing. If you are printing in CMYK, but have set up your card using spot colors, the same rule applies; Spot colors can lie outside the CMYK gamut and should be converted or avoided.

300 DPI

Be sure that all images that you place in the document are at least 300 DPI (PPI), unless otherwise stated. 300 DPI is usually the highest resolution that you can print on a digital press or a 150 line screen offset press. Sending a file that is higher resolution will not make a noticeable difference, and may increase the chance for corruption or errors when you upload the file.

Overprint Settings

If you have the full version of Adobe Acrobat (not the Adobe Reader) you can check to make sure that your overprint settings are correct. Overprinting is a printing term for images that are printed over whatever lies behind it in the background. In an offset environment this can save the work of having to have perfect registration to align the front image over the knocked-out areas behind it. Some lay-out programs will have this setting as the default for black. Usually, this attribute will change once the color of the object is changed. Sometimes though, the program may leave this on by mistake, creating problems (especially if it does it on white. The object then becomes completely transparent!) You can preview your documents overprint settings by going to Advanced->Overprint Preview or Advanced->Print Production-> Overprint Preview.

Tips For Making Smaller PDF Files

While smaller printed pieces are usually manageable in terms of file size, it can often become difficult to transfer larger, more complicated pieces like brochures and flyers. Below are a couple of steps that you can take to make your file as small as possible while losing as little visual fidelity as possible.

Downsampling your image.

In most layout programs, if you have a 5” X 5” photo that you place on a business card at 1” x 1” you will still have a photo that is 5” X 5” , it will just be displayed a smaller size at a higher resolution. This is well and good when size is not an issue, but this extra information can make the file MUCH bigger than it needs to be. This problem can be fixed by “Downsampling.” Downsampling will reduce the file to the exact size that it needs to be at the specified resolution. When you create a PDF for your layout, you will run across a menu where you will be able to “Downsample” you image for your PDF. It will ask what resolution you would like the image reduced to and for the threshold that it will apply the downsampling. So, if an image is 600 DPI, you want it to be 300 DPI and your threshold is set for 450 DPI, the image will be reduced to 300 DPI. However, if an image is 400 DPI and your threshold is 450 DPI, your image will remain unchanged.

Compression

There are two different types of compression available in PDF documents: ZIP compression and JPEG compression.

Zip compression is the least effective of the two, but provides a lossless compression. This means that no visual quality will be lost by using this type of compression.

JPEG compression is very effective in making your file smaller (please see previous section labeled “Image Files”), and is virtually unnoticeable at it’s higher quality settings. However, the lower the quality, the more your image quality will suffer. We don not recommend using the lower quality settings, only the maximum and very high quality settings for print output.

PDF Files Saved Out of Photoshop

When you save a PDF file out of Adobe Photoshop, much of the layer data can be included within the file. This can make even a small document like a business card reach excessive file sizes. You can fix this by either flattening the file before saving the PDF, or by un-checking the layers box when you save the PDF.


C: 0 | M: 0 | Y: 20 | K: 0
C: 0 | M: 10 | Y: 20 | K: 0
C: 0 | M: 20 | Y: 20 | K: 0
C: 10 | M: 20 | Y: 0 | K: 0
C: 20 | M: 10 | Y: 0 | K: 0
C: 10 | M: 0 | Y: 20 | K: 0
C: 0 | M: 0 | Y: 40 | K: 0
C: 0 | M: 20 | Y: 40 | K: 0
C: 0 | M: 40 | Y: 40 | K: 0
C: 20 | M: 40 | Y: 0 | K: 0
C: 40 | M: 20 | Y: 0 | K: 0
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C: 0 | M: 30 | Y: 60 | K: 0
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C: 10 | M: 25 | Y: 25 | K: 25
C: 0 | M: 30 | Y: 30 | K: 50
C: 5 | M: 0 | Y: 0 | K: 20
C: 5 | M: 10 | Y: 5 | K: 5
C: 10 | M: 60 | Y: 10 | K: 25
C: 10 | M: 10 | Y: 60 | K: 25
C: 20 | M: 30 | Y: 30 | K: 50
C: 0 | M: 60 | Y: 60 | K: 50
C: 15 | M: 0 | Y: 0 | K: 30
C: 0 | M: 0 | Y: 5 | K: 5
C: 20 | M: 100 | Y: 20 | K: 50
C: 20 | M: 20 | Y: 100 | K: 50
C: 30 | M: 50 | Y: 50 | K: 50
C: 0 | M: 80 | Y: 80 | K: 50
C: 30 | M: 0 | Y: 0 | K: 60

Color Chart

Benguiat

Book: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Book Italic: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Bold Italic: ***The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890***

Clarendon

Light: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Roman: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Black: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**

Copperplate

Light: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Regular: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**

Coronet

Regular: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Bold: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*

Floren

Regular: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*

Frutiger

Roman: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Italic: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Bold Italic: ***The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890***

Futura

Roman: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Book Italic: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Bold Italic: ***The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890***

Goudy

Regular: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Italic: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Bold Italic: ***The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890***

Helvetica

Roman: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Black: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Italic: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Bold Italic: ***The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890***
Black Italic: ***The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890***

Parisian

Regular: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890

Impact

Regular: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**

Rockwell

Regular: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Italic: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Bold Italic: ***The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890***

Shelley

Allegro : *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Andante: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Volante: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*

Times

Regular: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Italic: *The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890*
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Bold Italic: ***The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890***

Trajan Pro

Regular: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**

University

Regular: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890

Vag Rounded

Thin: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Light: The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890
Bold: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**
Black: **The Quick Brown Fox Jumped Over the Lazy Dog. 1234567890**