

All of the Output Center Laser Cutters use this **Illustrator Template** for file setup.

Other file types, such as **DXF** and **DWG** will **not be accepted**, but can be imported into this document.

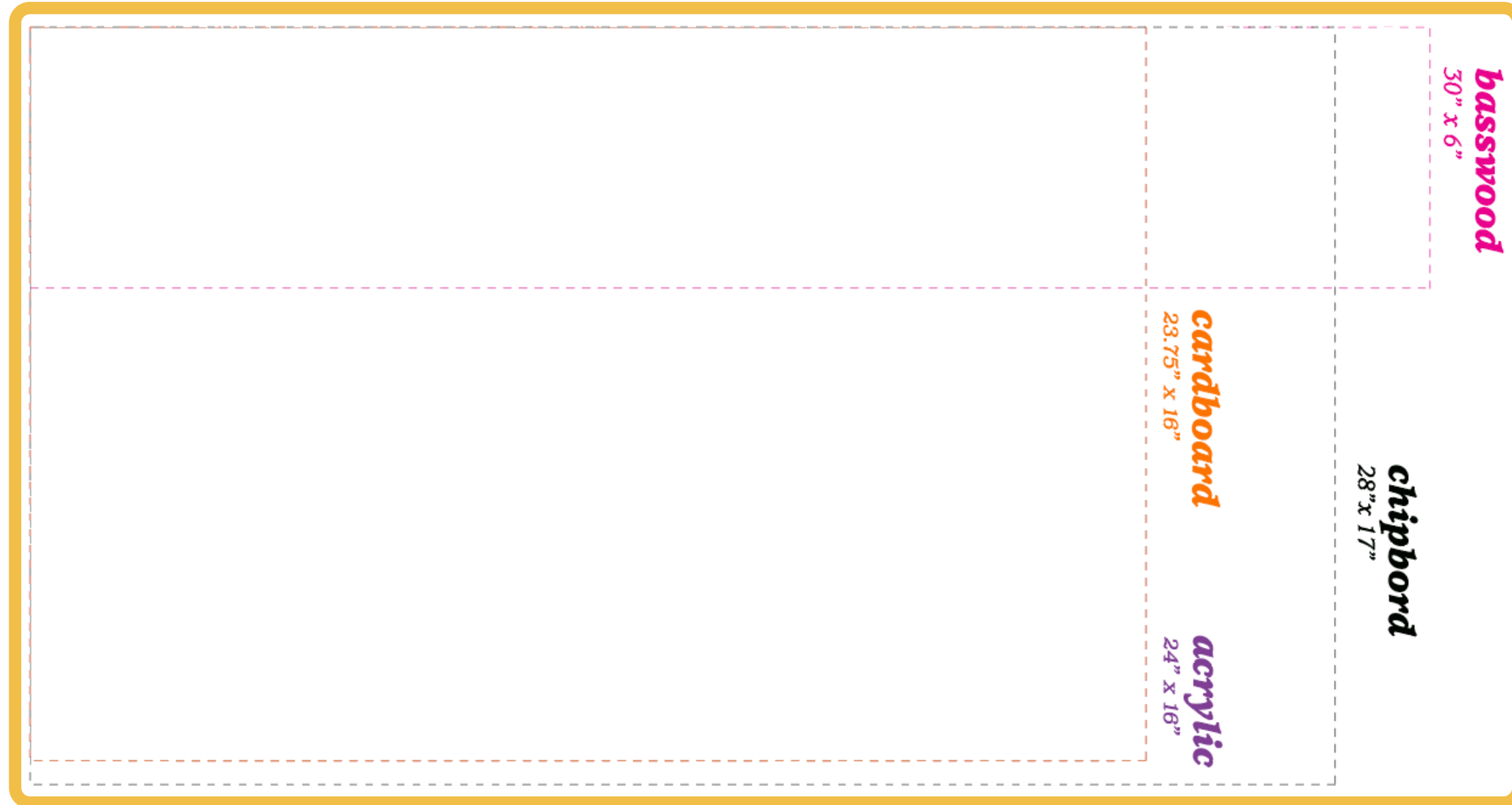
This template has two main functions:

1. The top of the template ensures that the design is the **correct size** for the laser cutters.

This is outlined in **GOLD**

2. The bottom of the template acts as a quick **reference guide** for **formatting the design** for the laser cutters.

Download this template at -----



The top half of the template is where the **design** will be **placed**.

The **outlined areas** represent the different types of **materials** that can be cut and their **dimensions**.

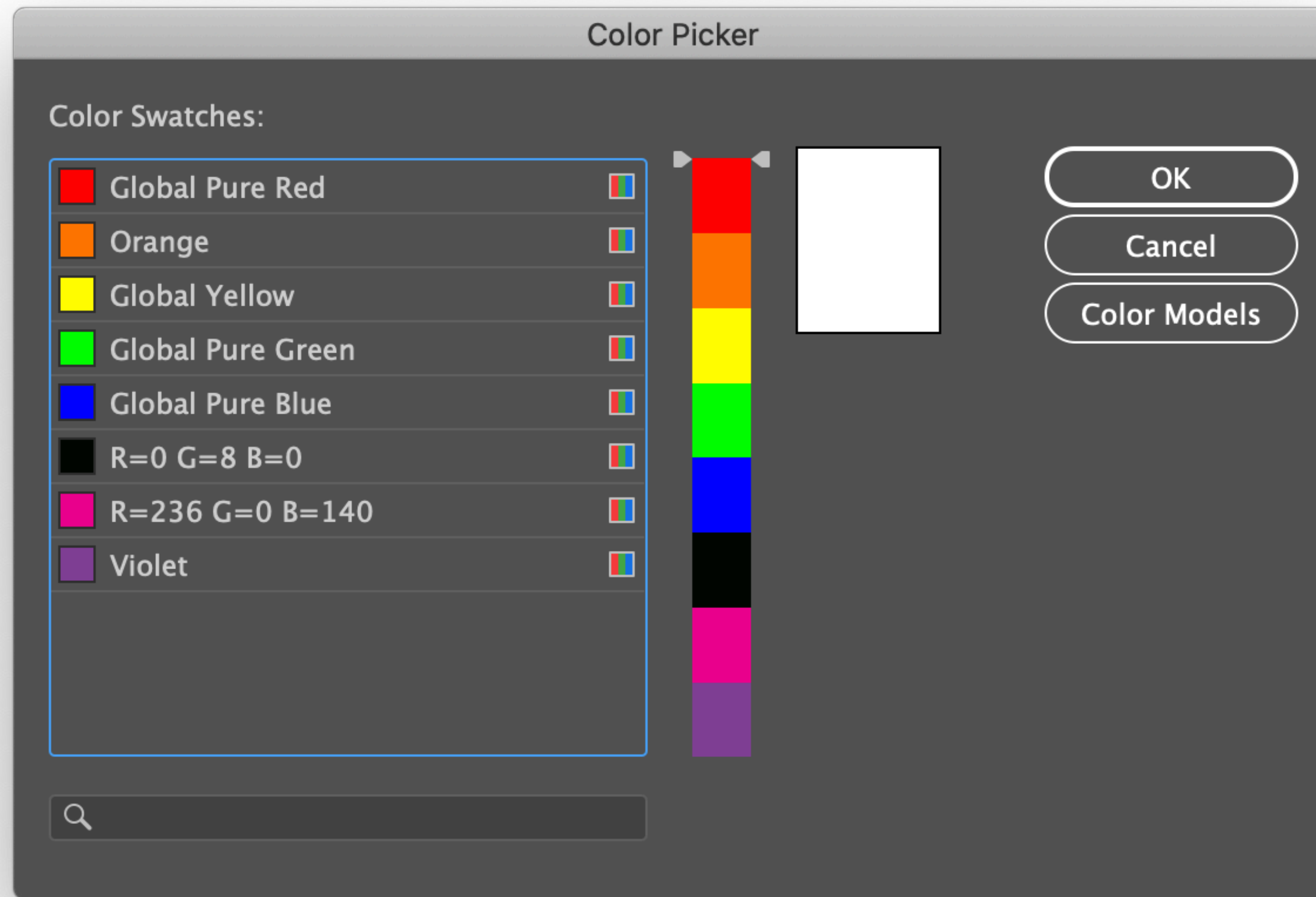
The design that is placed in this file **must fit** within these **specified areas**, depending on the desired **material**.

For example:

The chosen material for a design is **Basswood**.

Therefore, the design **must fit** within the **30" x 6"** space on the template.

The maximum bed size is 32in x 18 in



The bottom half of the template is a guide for **formatting** the design by **assigning colors** to lines and objects.

The laser cutter uses these preset **Color Swatches** to determine which lines need to be **cut, scored, or engraved**.

GLOBAL PURE RED = CUT

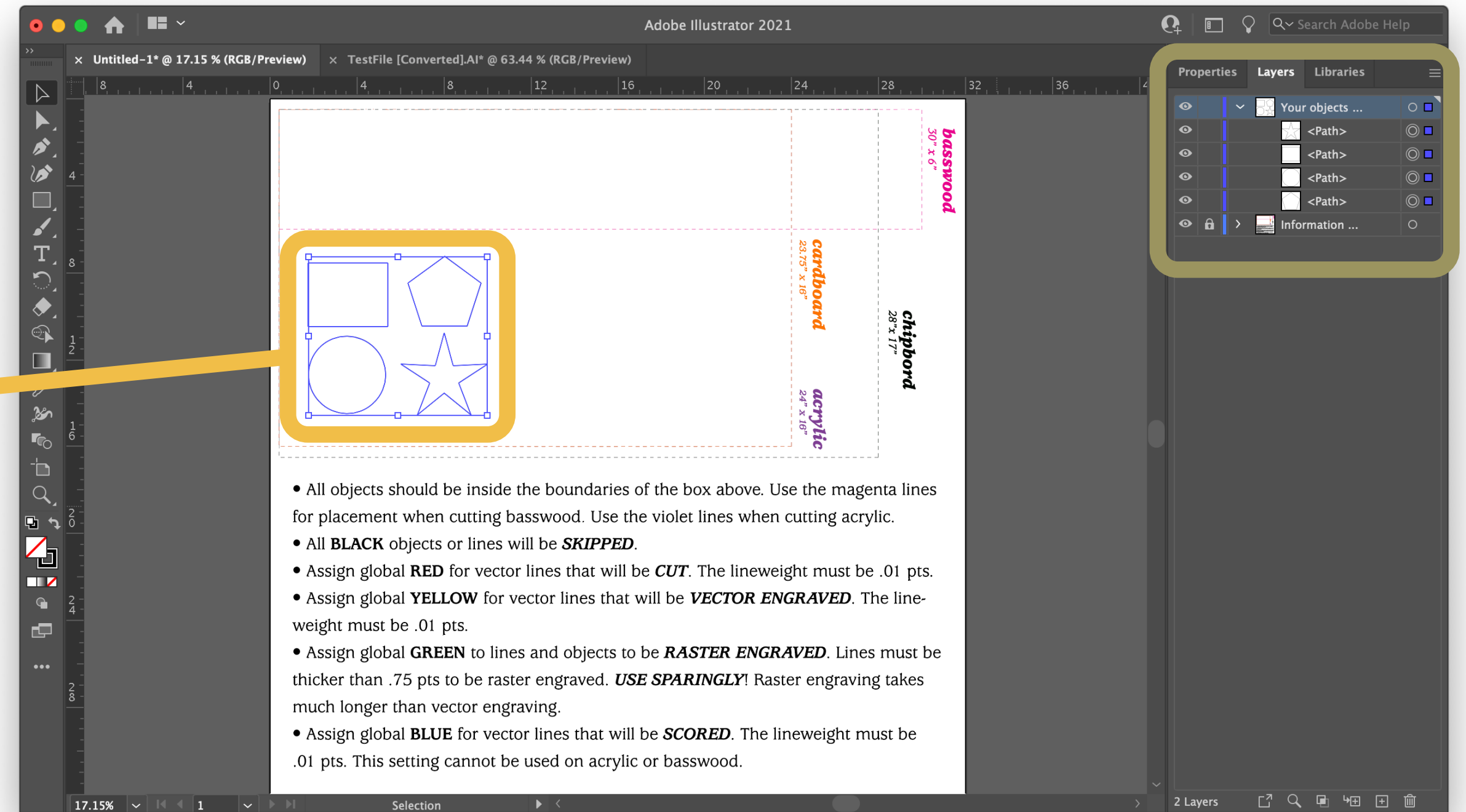
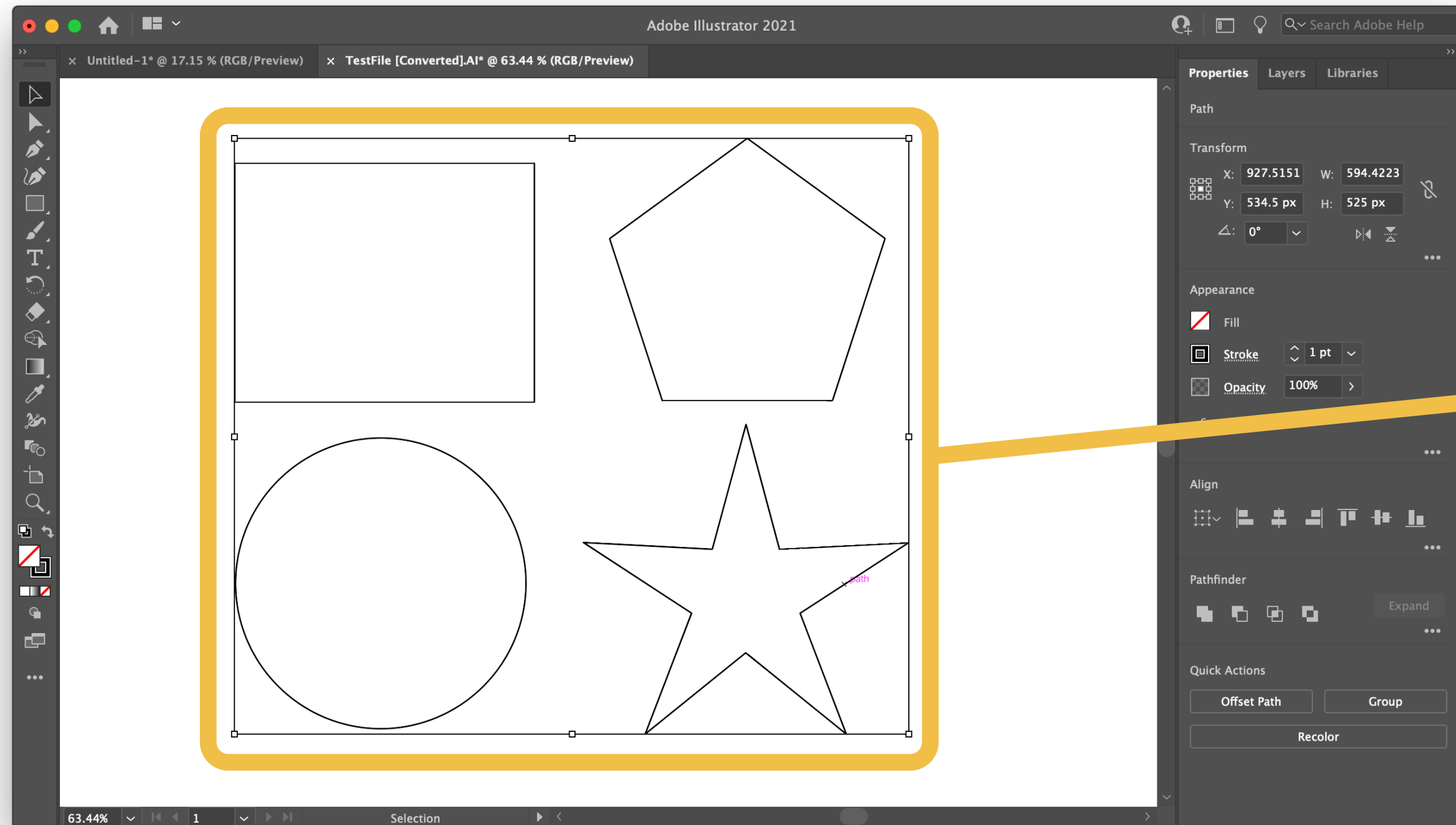
GLOBAL YELLOW = VECTOR ENGRAVED

GLOBAL PURE GREEN = RASTER ENGRAVED

GLOBAL PURE BLUE = SCORED

MAGENTA, BLACK, ORANGE, and **VIOLET** will not be cut.

If the Color Swatches are edited, the file will not cut. **DO NOT EDIT THESE COLOR SWATCHES**

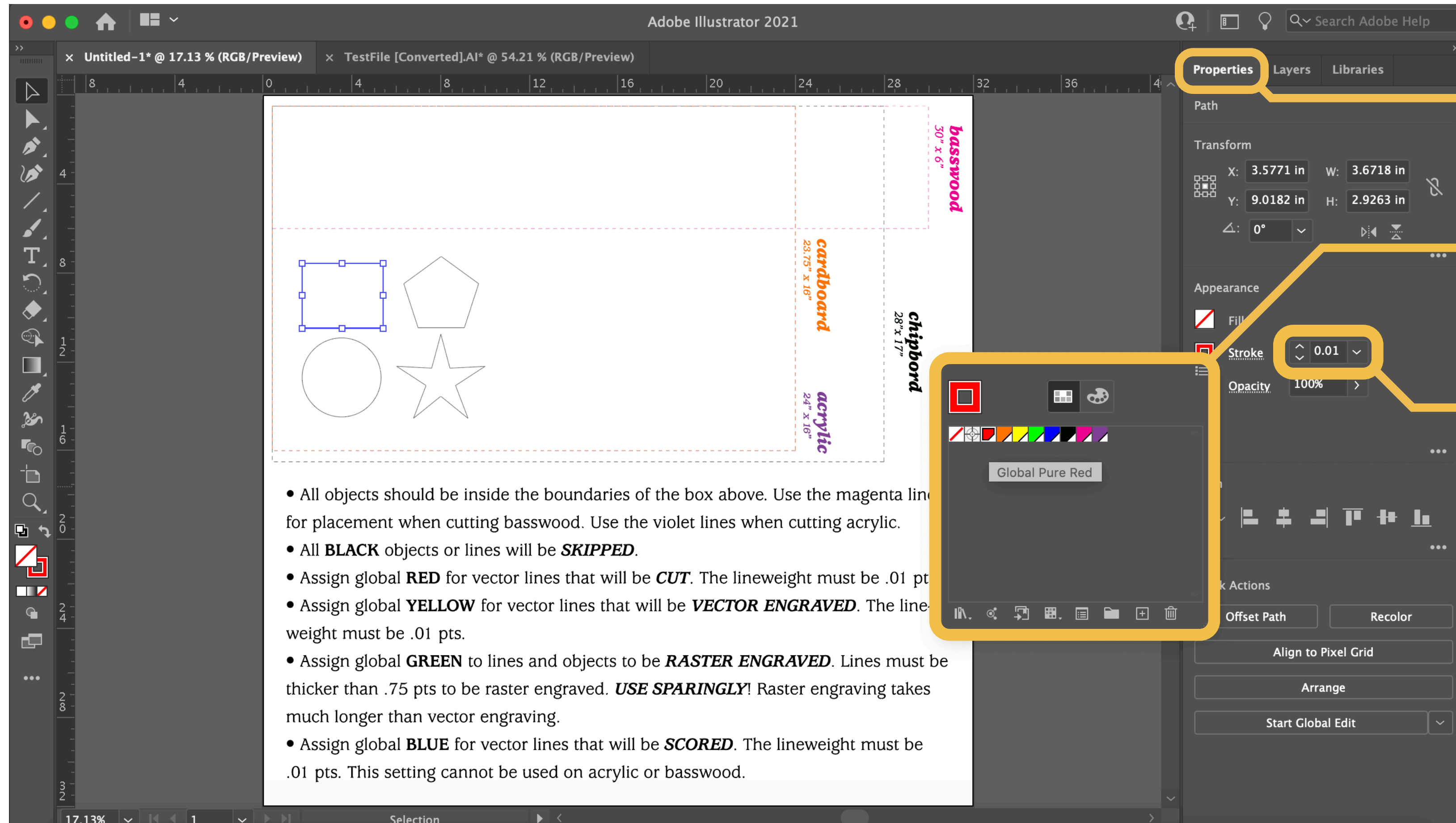


Mac: **COPY** (command+C) and **PASTE** (command+V) the design into the template.

Windows: **COPY** (Ctrl+C) and **PASTE** (Ctrl+V) the design into the template.

The design will be placed in the **YOUR OBJECTS HERE!** layer.

This is to help **organize** your file and quickly edit pieces of the design.



Edit a line or object by opening the **Properties** Tab.

Set the **color** of the **line (Stroke)** or **object (Fill)** to **Global Pure RED**

Set the **line weight** of the line or object to **.01 pts.**

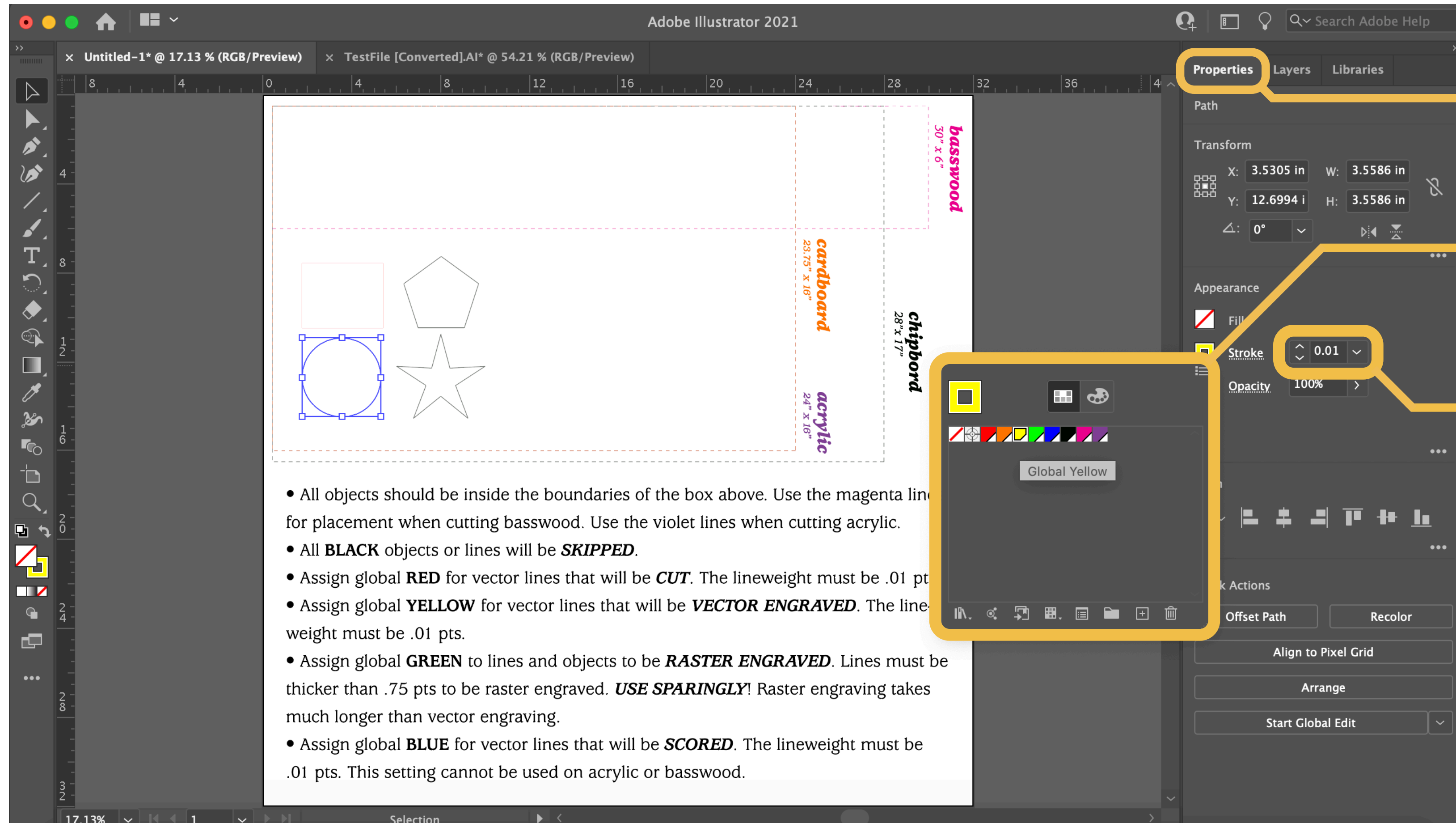
This line or object will be **CUT** by the laser cutter.

This will appear **very thin**, but is **necessary** for cutting.

Connect lines when possible to streamline the cutting process.

Be aware of **double lines** in the file, as double lines can **decrease cut quality** and potentially **burn** the material.

Setup for Vector Engraving a Line



Edit a line or object by opening the **Properties Tab**.

Set the **color** of the **line (Stroke)** or **object (Fill)** to **Global YELLOW**

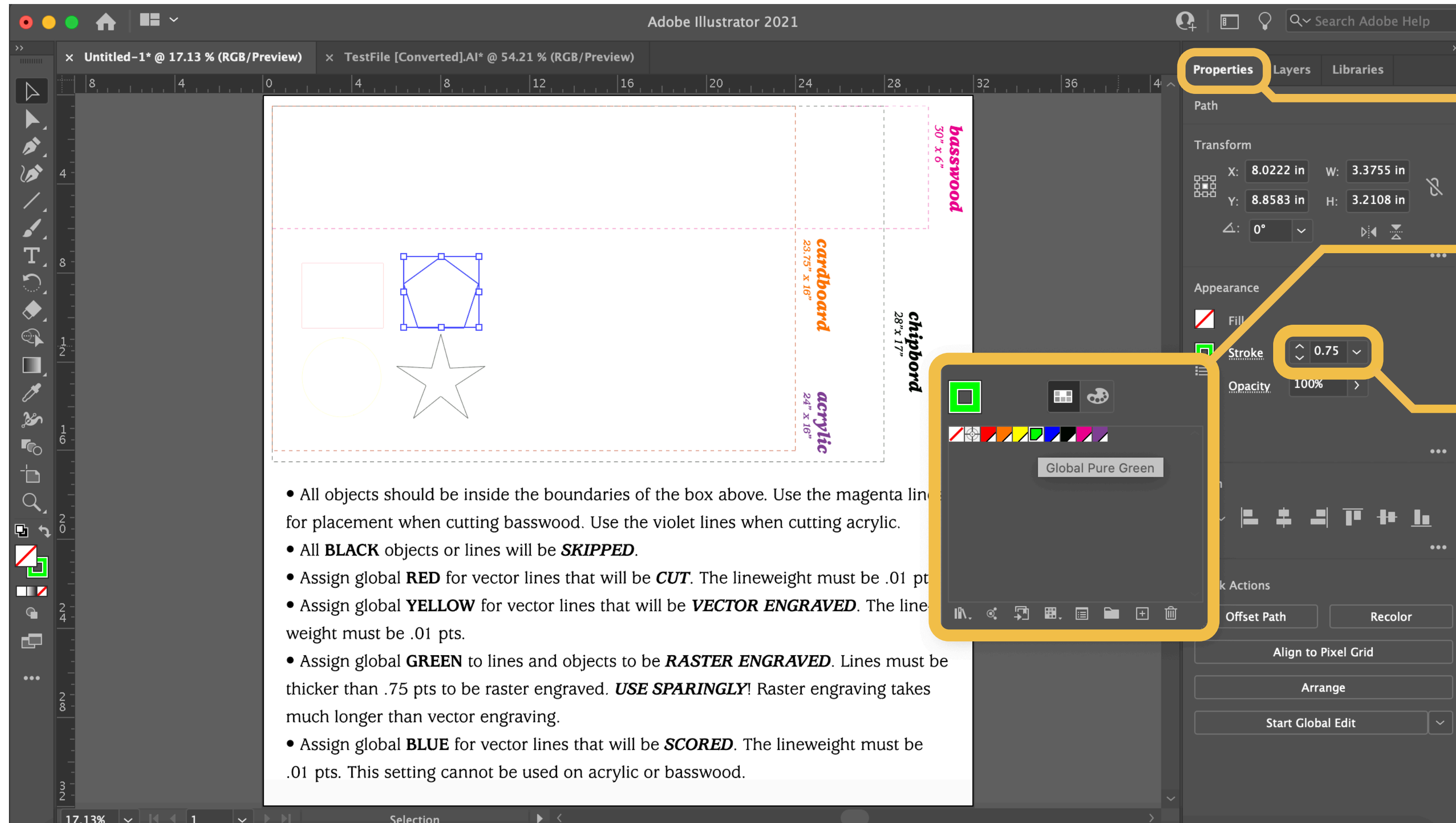
Set the **line weight** of the line or object to **.01 pts**.

This line or object will be **VECTOR ENGRAVED** by the laser cutter.

Vector Engraving **marks** the surface of the material **without cutting through** the material.

This type of engraving is **quicker** and can be used to create **tiny, delicate markings** on the surface of the material.

Setup for Raster Engraving a Line



Edit a line or object by opening the **Properties** Tab.

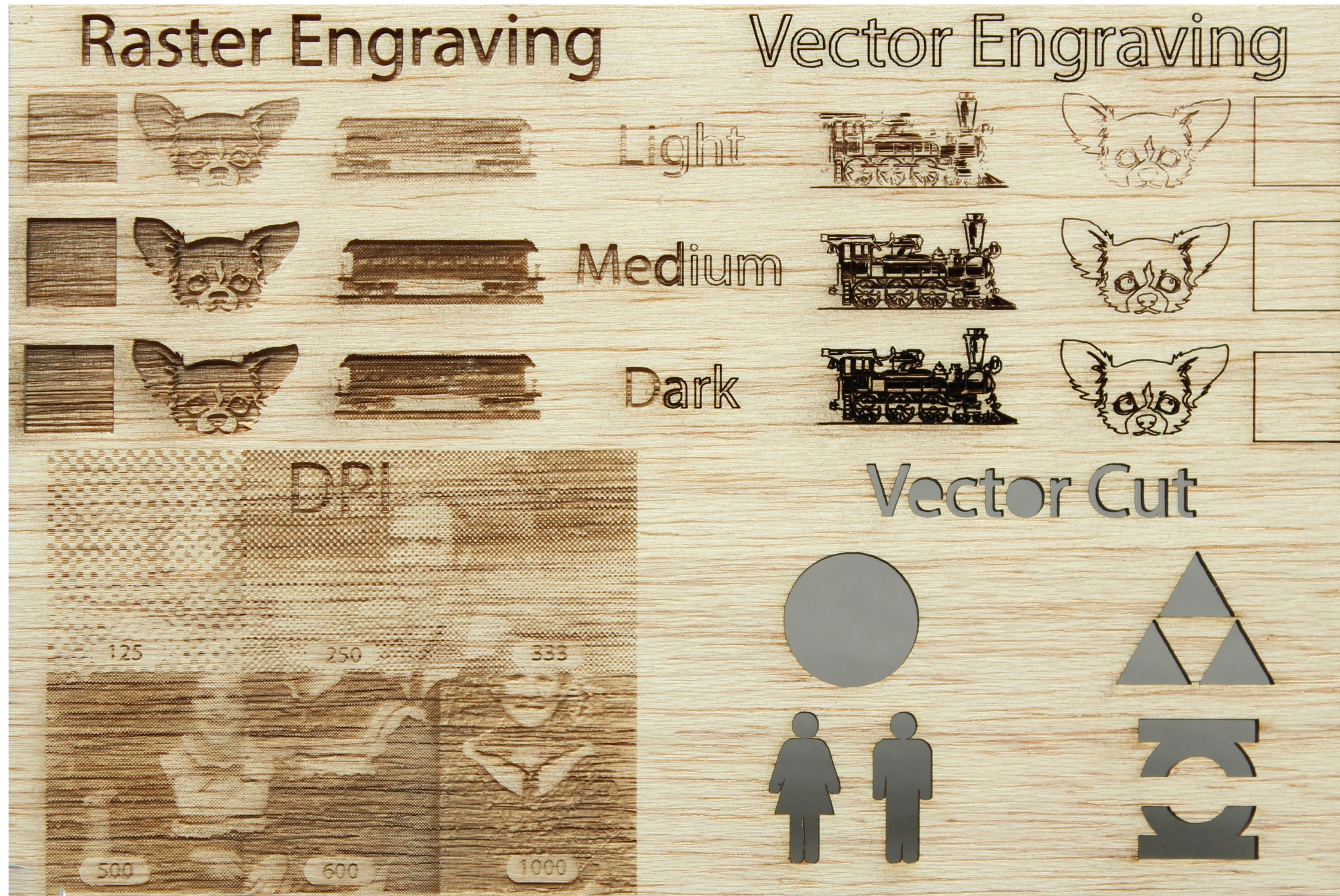
Set the **color** of the **line (Stroke)** or **object (Fill)** to **Global Pure GREEN**

Set the **line weight** of the line or object to **.75 pts**.

This line or object will be **RASTER ENGRAVED** by the laser cutter.

Raster Engraving **marks** the surface of the material **without cutting through** the material, and can be used to engrave **areas** rather than just lines.

Raster Engraving should be used sparingly, as it takes significantly longer than cutting or vector engraving.



The difference between **Raster Engraving** and **Vector Engraving** is in how the laser processes the data.

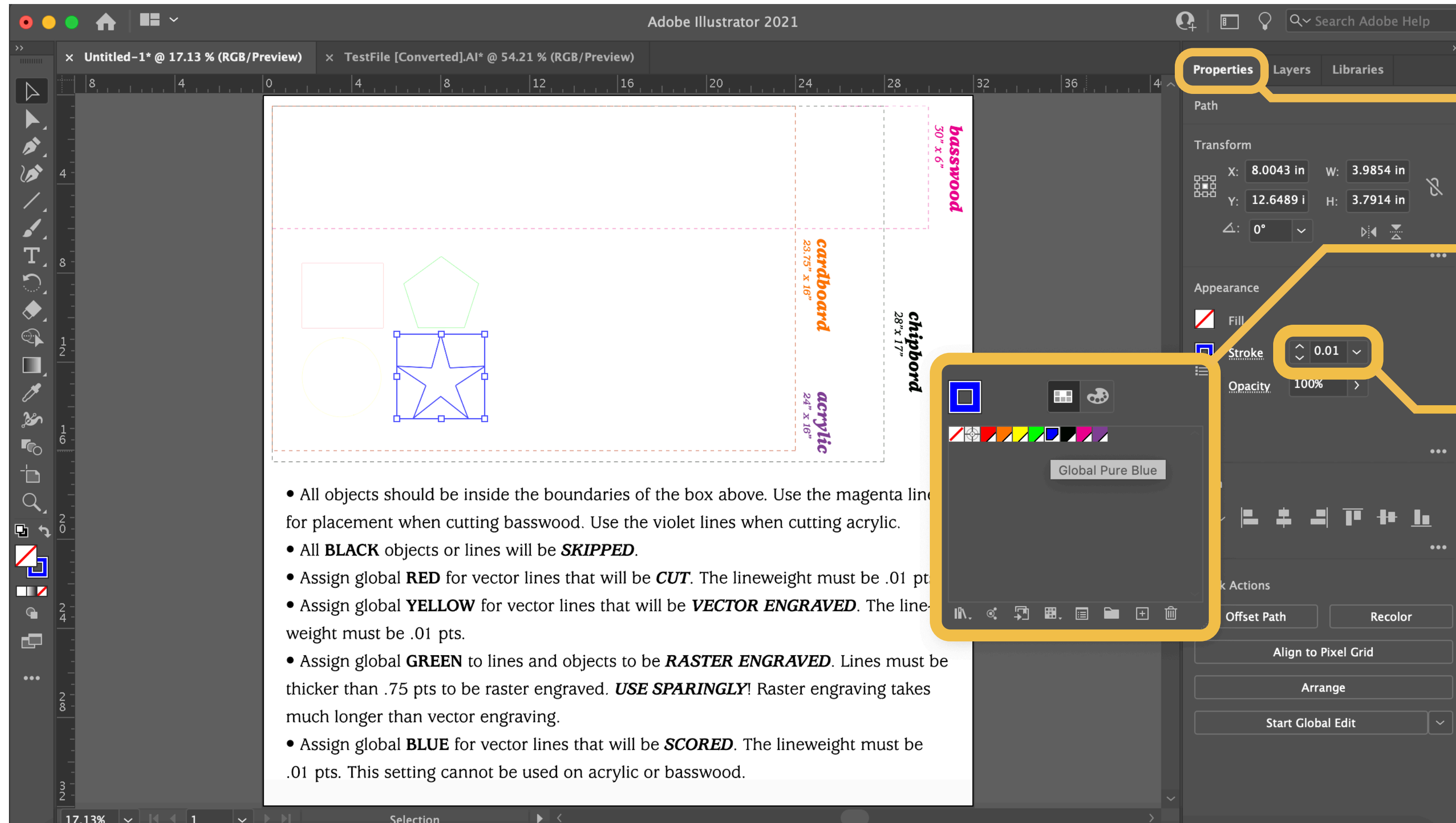
Raster objects are composed of **pixels**, and the laser cutter reads these objects like a traditional printer (**moving side to side**).

Vector objects are composed of **paths and lines**, and the laser cutter engraves **along** the paths and lines.

Raster Engraving is best used for **photos** and **large areas**.

Vector Engraving is best used for engraving **paths** and **simple lines**.

Use **command+y** on mac and **ctrl+y** on windows to **view** lines **easier**. Make sure to **switch back** before **saving**.



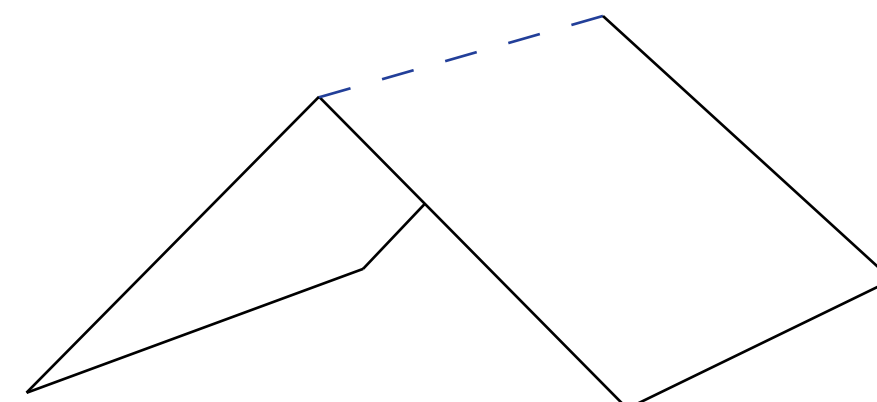
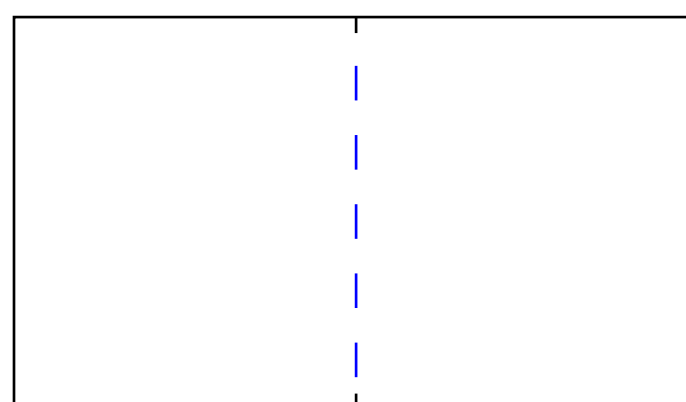
Edit a line or object by opening the **Properties** Tab.

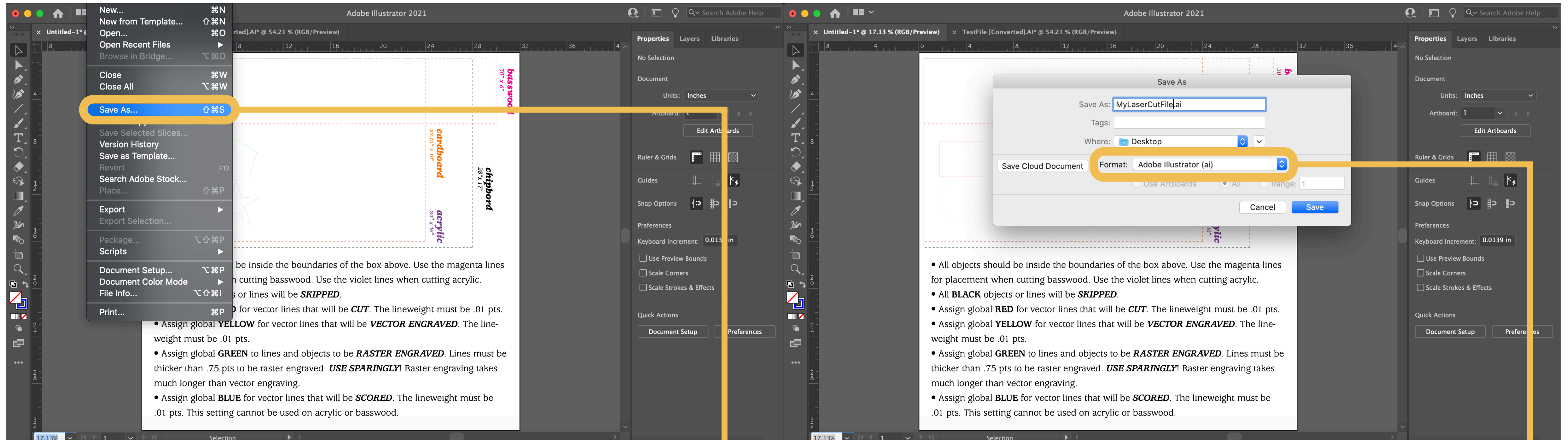
Set the **color** of the **line (Stroke)** or **object (Fill)** to **Global Pure BLUE**

Set the **line weight** of the line or object to **.01 pts.**

This line or object will be **SCORED** by the laser cutter.

This is useful for scoring **chipboard, paper, or cardboard** in preparation for **folding**.





To **save the file** for cutting, go to **File > Save As...**

This is found at the top **lefthand** corner of the screen.

Name the file **yourname_lasercut_mmddyy.ai**

Make sure the file is saved as an **Adobe Illustrator** file.

Leave the Illustrator Options as default and click **“OK”**