



Color Matching & Retouch

Color Matching & Retouch

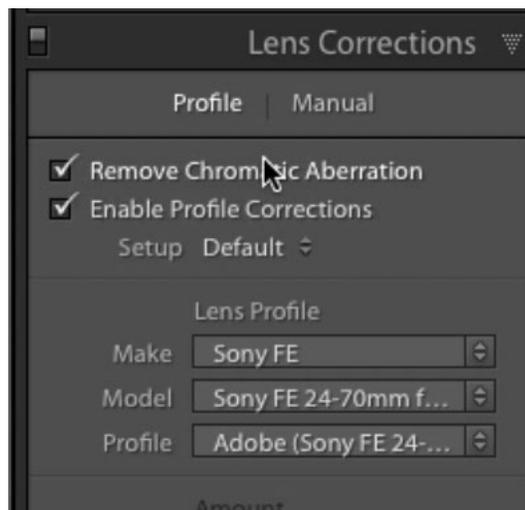
I encountered several challenges in retouching the image featured in this video, and I would like to walk you through the steps I took in fixing and optimizing the photo. In the process, you'll learn how to match colors across multiple locations in an image as well as some different retouching techniques.

Let's look at the issues we're going to tackle:



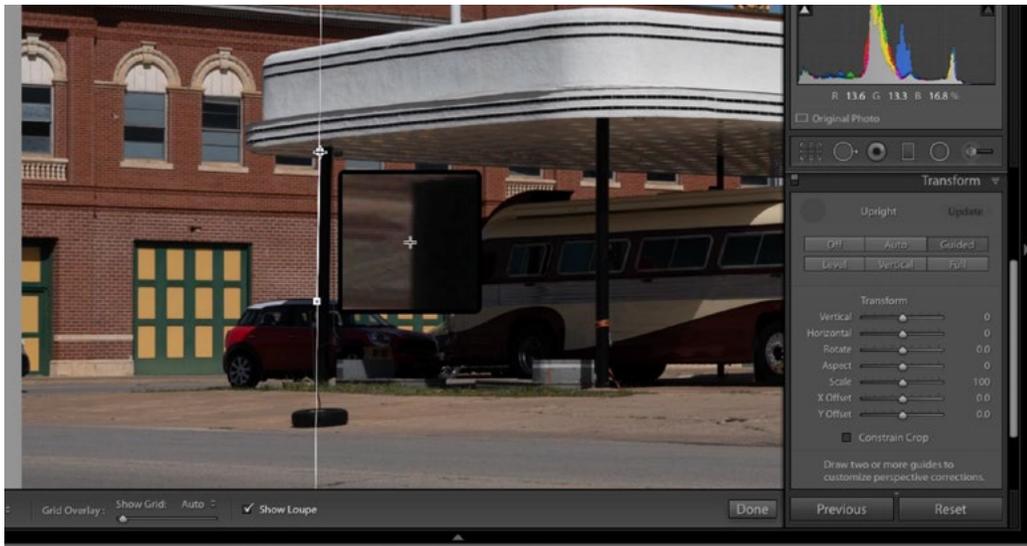
At left is the original image. At right, we're highlighting the areas we want to retouch.

We'll start by adjusting the overall image in Lightroom. The first thing we'll do is correct for any distortion. Under the Lens Corrections panel within the Develop Module, we'll turn on the check boxes to "Remove Chromatic Aberration" and "Enable Profile Corrections." We also want to make sure that any vertical lines in the building are perfectly vertical, and we'll do that within the Transform panel. We'll click on the icon in the top left corner of the panel in order to activate the Guided Upright feature. This will allow us to click and drag out lines on the image, defining edges that should be perfectly horizontal or per-



In the Lens Corrections panel, we turned on the check boxes to Remove Chromatic Aberration and Enable Profile Corrections.

fectly vertical. The tool allows us to drag out up to two vertical and two horizontal lines, and you won't see any change in the image until two lines have been created. We'll draw out one line that runs along the right edge of the building and another line that runs along the left edge of the building.



The Guided Upright feature is being used to drag out lines, defining edges that should be perfectly vertical.



The Adobe Neutral profile was chosen because it works well with mid-day scenes that create too much contrast in the image.

Now we'll work on the overall tone of the image. Because there are really bright highlights and REALLY dark shadows, we need to optimize contrast to get more shadow detail in the image. Before working with the tonal sliders, we'll look at the color profile of the image. We can do that by using the Profile setting, which can be found at the top of the Basic panel. Click on the icon to the right of the Profile menu (it looks like four rectangles) and a list of available profiles and profile categories will expand. We'll click to expand the Adobe Raw profiles and hover the cursor over each one to see a preview of the effect in the main image window. Most of them have a negative effect on the shadows, with the exception of the Adobe Neutral profile. This profile actually lightens the shadows, and this is what we want, so we'll click to apply it and then we'll click the Close button in the top right corner of the Profile panel.

Next, we'll optimize the image using the sliders in the Basic panel. My main concern is that the shadows are too dark, so we'll drag the Shadows slider to the right until we can see a good amount of detail in those areas. I'll also bump up the contrast and drag the Clarity slider to the right in order to make the fine details pop out a bit more. Working with the colors, I'll lower the Vibrance setting in order to tone down the more mellow colors (I only want the vibrant colors to really pop). Then I'll bring the Saturation slider up to make the image more colorful as a whole. We'll then take the White Balance Eyedropper and use it to click on an area in the white building to ensure that the building is truly white.



Above, you can see the adjustments made using the Basic panel sliders.

After working through the sliders, we'll then move on to adjust individual areas of the image with the Adjustment Brush. The main goal is to tone down the areas not important to the scene so that the eye is naturally drawn toward the bus and the building. The following adjustments will be made to achieve that:

- Lower the saturation of the door on the right side of the building as well as the pavement surrounding the building
- Lower the saturation of the sign on the building
- Lower the saturation of the building in the background
- Darken the shadows and lower the contrast and clarity on the Mini Cooper

Now that the initial adjustments have been made, it's time to send the image over to Photoshop. We can do that by using the keyboard shortcut Command+E (Ctrl+E on Win). Alternatively, you can go to the main menu and choose Photo > Edit In > Edit in Adobe Photoshop.

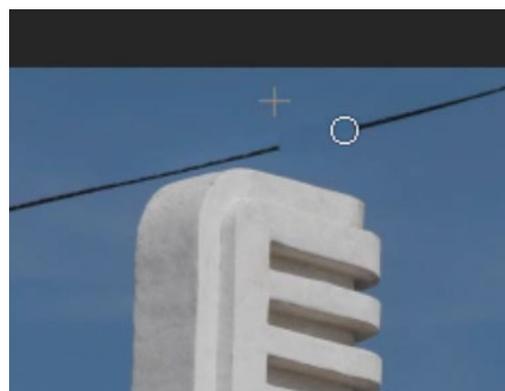


Left: The image, before the Adjustment Brush was used. Right: The image, after the Adjustment Brush was used.

At this point, you'll need to decide whether you're going to do the retouching on the original image layer or on an overlying empty layer. If you want to do your retouching on an empty layer, create a new layer by clicking the New Layer icon at the bottom of the Layers panel. When working this way, you'll need to ensure that the sample settings for the different retouching tools are set to "Sample All Layers" or sample "Current & Below." These settings can be found in the Options Bar when the tool is active.

Retouching the tower and telephone lines

We want to remove the tower and telephone line near the top of the image, but that's not going to be a straightforward process because these items take up so much room in the frame. The Spot Healing Brush works much better on smaller areas. To start, we'll use the Clone Stamp Tool and break up the telephone line into smaller pieces. We'll take extra care in removing the line in the area where it comes very close to the top of the building, as the other spot removal tools would likely mess up



The Clone Stamp Tool is being used to break up the telephone line.

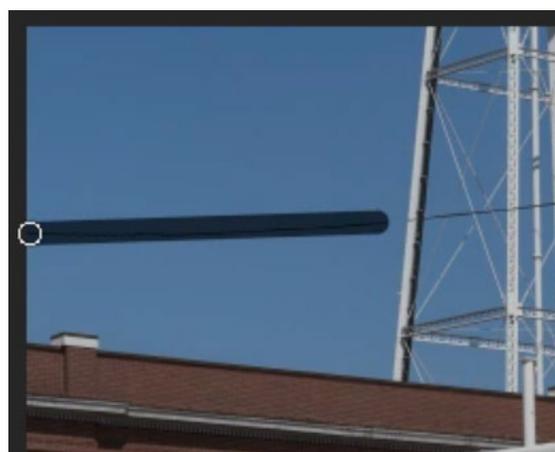


The Clone Stamp Tool was used to break the telephone line into smaller pieces, making it easier to remove.

in this area. With the Clone Stamp Tool, hold down the Option key (Alt on Win) and click to sample an area that you want to use to cover up the unwanted object. Then release the Option key and click and drag to paint over the object. You will see a preview inside of the brush tip that shows what content will be pasted there.

Once the telephone line has been broken up into smaller pieces and separated from the other objects in the frame, we'll use the Spot Healing Brush to paint over the individual pieces to remove them.

Next, we'll move on to the tower. We'll use the Clone Stamp Tool to separate the tower from the top of the building, sampling from somewhere on the top edge of the building and then painting over the tower where it comes in contact with the building. Because of all the small details, we'll have to use a small brush



The Spot Healing Brush is being used to remove the pieces of telephone line.



The Clone Stamp Tool is being used to separate the tower from the building.

that has a fairly hard edge to separate the small poles from the top of the building. We'll also break up the tower about half way up, as this will help later when removing the pieces with the Spot Healing Brush.

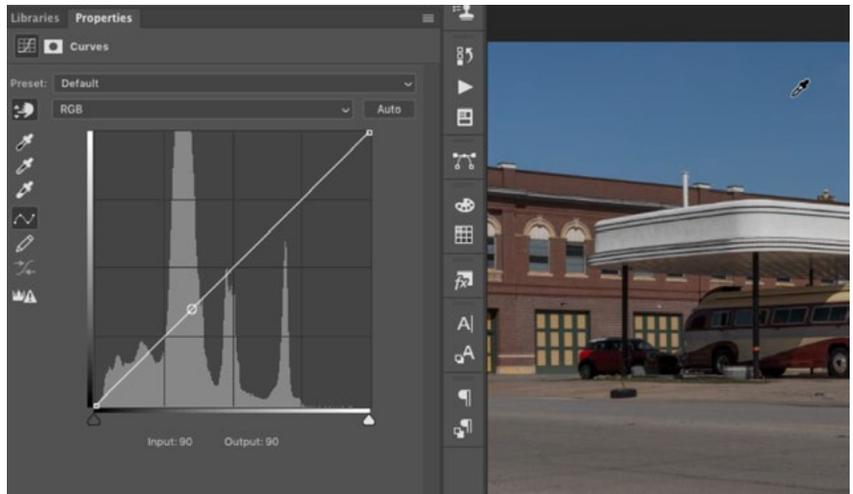
The Spot Healing Brush can now be used to paint over the isolated parts of the tower. We'll paint over the entire thing, leaving gaps in the areas of sky so that the tool can use the color information in those areas to fill in the places we're painting. If the tool is unsuccessful in some areas, we can simply go over those areas again using the same technique.



After the tower was broken up, the Spot Healing Brush was used to remove it.

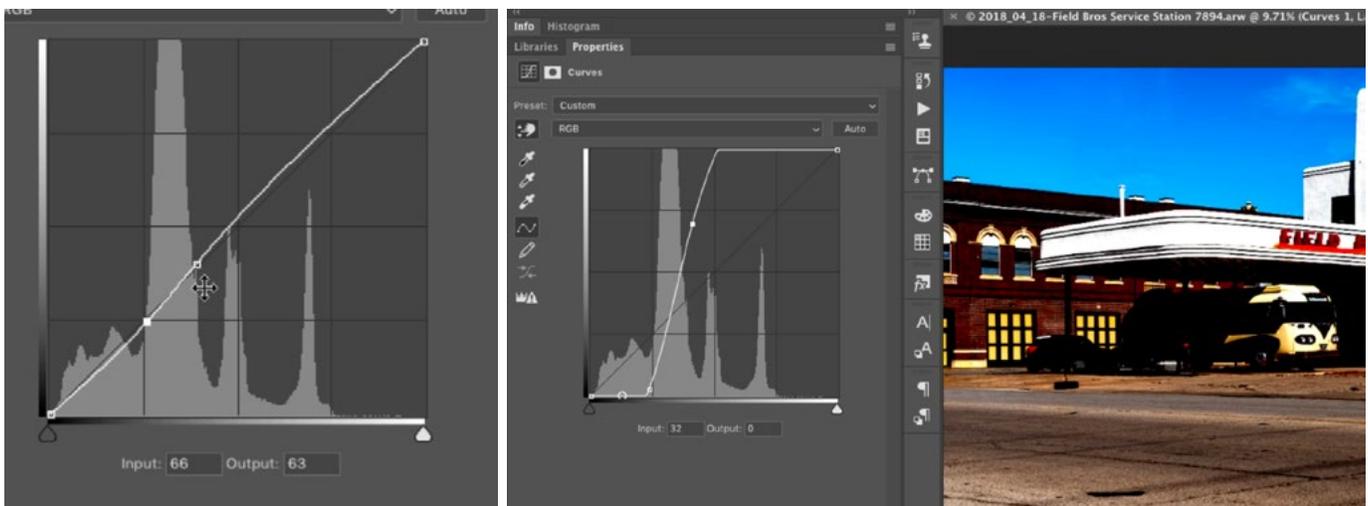
Now the tower and telephone line have been removed, but we need to check to make sure that the sky area looks smooth. (Sometimes the retouching tools can create a subtly blotchy result.) To do this, we'll create a Curves adjustment layer by clicking on the Adjustment Layer icon at the bottom of the Layers panel and choosing Curves from the pop-up menu. We'll make sure the targeted adjustment

feature is turned on (It looks like a hand icon on the left side of the Curves Properties panel) and we'll hover our cursor over the sky area. Looking at the curve, a point will appear, representing the area under the cursor. In an image with a lot of sky area, there will likely be a big hump in the curve that represents that area. We'll click to add points on either end of that hump. We'll drag one of the



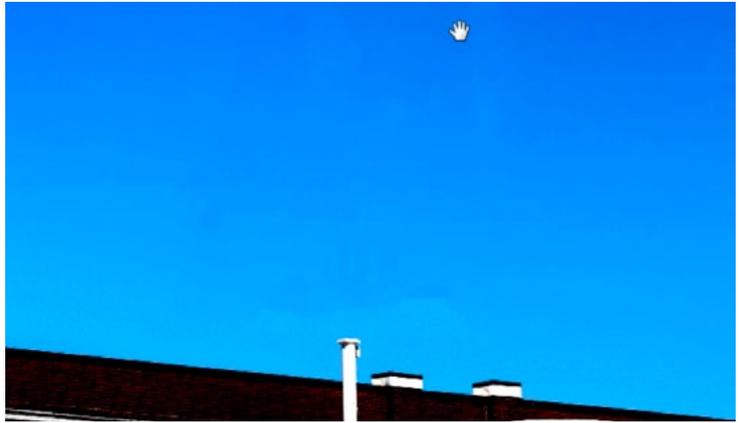
The hand icon was turned on and we're using the eyedropper to locate the area of the curve that represents the sky.

dots straight up and the other straight down. This will create an extreme adjustment in the sky that will exaggerate any blotchiness. In our example, we can see some of that blotchiness in the area we did our retouching.



Left: A point was added on either end of the hump in the curve that represents the sky. Right: The points were dragged way down and way up to create an exaggerated adjustment that reveals any blotchiness in the sky.

With the Curves adjustment layer still visible, we'll click back on our retouching layer to make it active and we'll continue to work on the sky area with the Spot Healing Brush, trying to create a smoother look. If this isn't successful, we'll switch to the regular Healing Brush because this tool allows us to choose a sample area. This can give us more control over how the retouching is happening.



After creating the extreme adjustment, we can see that there are blotchy areas in the sky that need further retouching.

Tip: When retouching smooth areas of color, like skies, it's best to make sure the image is in 16-bit mode. This mode includes thousands more brightness levels than 8-bit so the areas of solid color, as in skies, remain smooth-looking when retouched.

After the sky area has been retouched, we can throw away the Curves adjustment layer, as it was only used to show us where there might be blotchy areas that we needed to address. We'll drag it to the trash can at the bottom of the Layers panel.

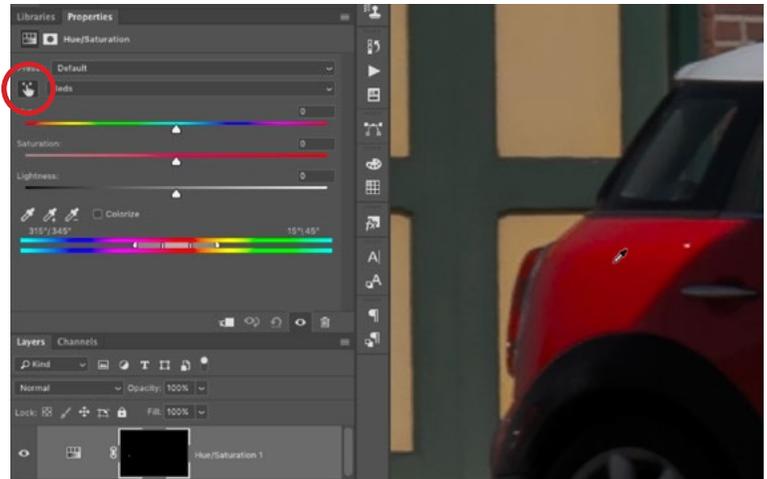
Retouching the car

There are two ways that we can tackle the red car in the image. We can either darken the back of the car (the part that's in the sun) to make it look as if it's in the shade and therefore be less noticeable, or we can remove the car completely. Let's look at both options.

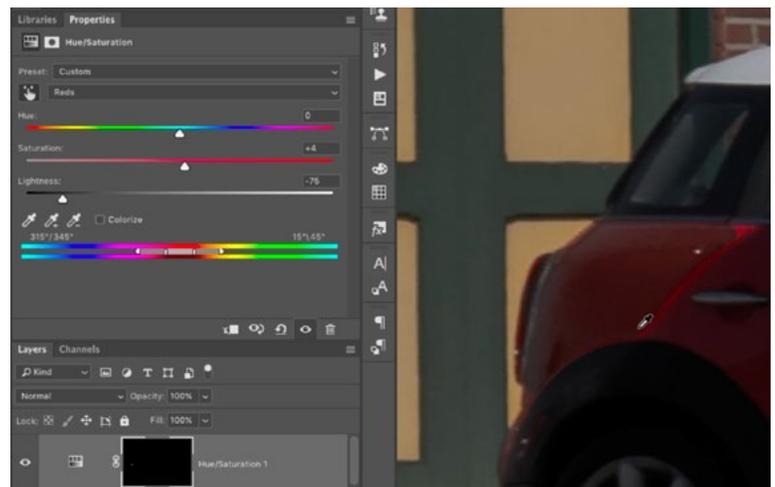
First, we'll try to make the back of the car look like it was in the shade. To do this, we'll need to use a color-matching technique. We'll first make a selection around the bright red area by using the Quick Selection Tool. When using this tool, it's best to turn on the Auto-Enhance check box found in the Options Bar. If you're doing

your retouching on an empty layer, you'll also need to turn on the Sample All Layers check box. Next, we'll create a Hue/Saturation adjustment layer by clicking on the Adjustment Layer icon at the bottom of the Layers panel. Because we had a selection active, that selection is automatically applied to the mask that's attached to the Hue/Saturation adjustment layer. This makes it so any change we make using this adjustment layer will only be visible in the area where the selection was.

In the Properties panel for the Hue/Saturation adjustment layer, we'll make sure the little hand icon in the upper left is turned on. Then, we'll use the eyedropper to click in the area of color we want to affect. In this case, it's the bright part of the car. When we click using this tool, it automatically changed the color menu to Reds, which means the sliders will only affect the selected hue. It also targeted the specific color on the sliders at the bottom of the panel, centering the sliders on the exact color of the car. Now, we'll work with the HSL sliders, attempting to get the targeted part of the car to match the rest of the car, which is in the shadows. We'll drag the Lightness slider to the left until the area is just as dark as the rest of the car. After doing this, I notice that the area does not look as colorful as the rest of the car, so we'll drag up the Saturation slider until they look the same.



We activated the hand icon and clicked on the bright red area of the car we want to target.



The HSL sliders are being used to match the targeted area to the rest of the car. The Lightness slider was moved way down and the Saturation slider was moved slightly up.

At this point, we can see that the transition is not smooth, which just means that the selection was not perfectly accurate and therefore the mask is not perfectly targeting the area of the car we want to change. It will be difficult to create a perfect mask, so instead of working further on the mask, we'll create a new, empty layer above the Hue/Saturation adjustment layer and we'll use this layer to retouch the line created by the rough transition.



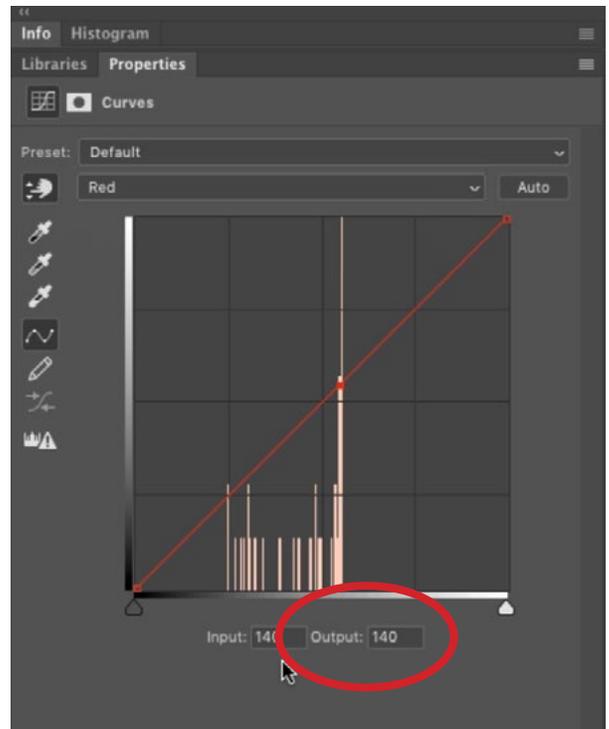
The Spot Healing Brush is being used on an empty layer to retouch the abrupt transition.

Working on this empty layer, we'll activate the Spot Healing Brush and use it to paint over the line. If the Spot Healing Brush doesn't work the way it should, then we'll switch to the Healing Brush because with this tool, we can manually choose the sample area.

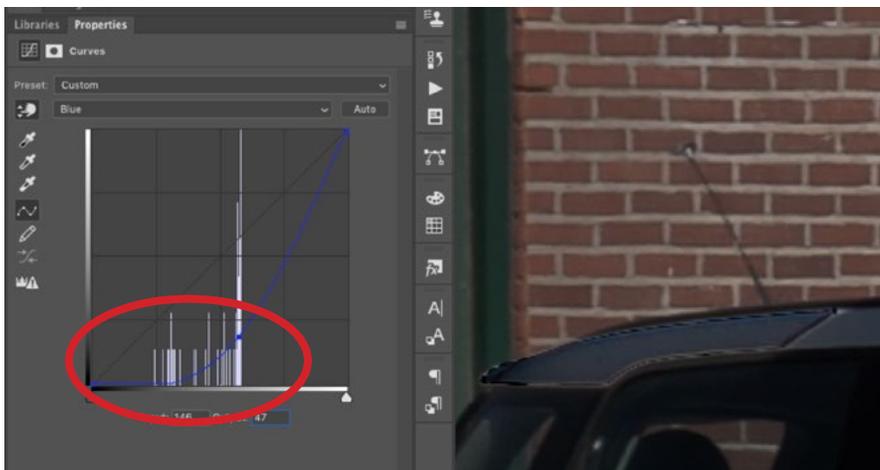
We used a Hue/Saturation adjustment layer to color-match the back of the car because the area contained a great deal of color. Had the area been less colorful, the Hue/Saturation adjustment would not have been as effective and we would have instead had to use a Curves adjustment layer to do the color matching. This will be the case on the top of the car, where the bright area is white.

To make the light part of the car roof match the area that's in the shadows, we'll again make a selection around the area using the Quick Selection Tool. When using the Quick Selection Tool, we'll again make sure that the Auto-Enhance check box is turned on and that the Sample All Layers setting is turned on as well. Then, we'll create a Curves adjustment layer and make sure that the hand icon on the left side of the Properties panel is turned on. Using this tool, we'll hover the cursor over the area we want to change (the bright roof of the car), hold down Shift+Com-

mand (Shift+Ctrl on Win) and click in that area. This will place a point on each of the color curves. We'll switch the color menu at the top of the curves chart to Red. Then, we'll hover our cursor over the part of the roof we want to match the selected area to. In this case, it's the part of the white roof that's in the shade. We'll note the Input/Output number beneath the curve chart. Then, we'll move the cursor away from the image again and enter that number into the Output field. This will drastically change the color in the image but we can ignore that for now. We'll then change the color menu above the curves chart to Green and follow the same process, hovering the cursor over the sample area, noting the number beneath the curve chart and then typing that number into the Output field. We'll finally change the color menu to Blue and do the same thing.

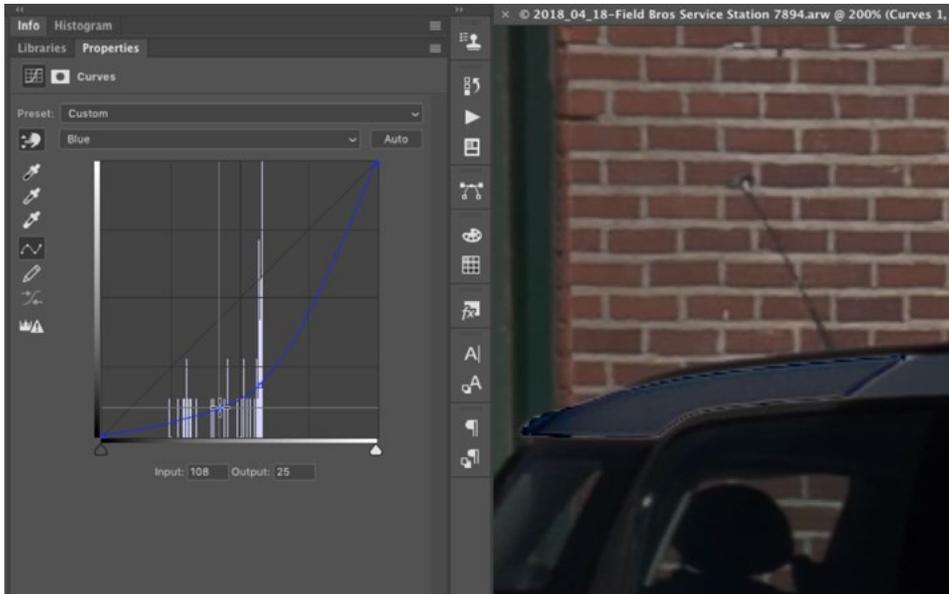


When color-matching using the Curves adjustment, we want to match the Output number of the target area to the Output number of the area we're trying to replicate.



The Blue curve is bottoming out, creating an abrupt transition in the image.

Now, the tones are starting to match, but we have an abrupt transition. Looking at the three different color curves, any time you see the line topping out or bottoming out (as it's doing in our case), you're not going to have a smooth transition. If this is the case, click to add a point on the curve



We clicked to add a point in the area where the curve was bottoming out and we're dragging the point to create a smoother curve.

at the end of where it's bottoming out and then move the point up or down to create as smooth of a curve line as possible.

Now we can see that the area we're targeting is starting to match the rest of the car's roof, but there's still an abrupt transition. It almost looks like there's an outline around the area. We'll use a soft-

edged brush and paint on the mask to try and blend the area in better. We can also retouch out the transition line by working on a new, empty layer and painting over the transition using the Clone Stamp Tool (or whatever retouching tool you feel would be most appropriate).

The other option we have with this image is to retouch the car out completely. Let's look at a few tips relating to that process:

The car is partially blocking two identical garage doors. It's blocking the right half of one door, and the left half of the other door. We can make a selection around the door that's blocked the least and copy that content onto its own layer. Because the area we want to copy is made up of several different layers, we need to use the Copy Merged command, which will copy a flattened version of the image to its own layer. You can do this by using the keyboard shortcut Shift+Command+J (Shift+Ctrl+J on Win) or by going to the Edit menu and choosing Copy Merged. Then, we'll go back to the Edit menu and choose Paste. We can now use the Move Tool to position the copied content over the other door, therefore hiding the car. In



A selection is being made of an area that we're going to copy. We'll use the copy to hide the part of the other garage door that's obstructed by the car.

order to see how the layer is lining up with the underlying content, we can change the blending mode of the layer to Difference (this will give us a view that shows you where the layer differs from what's underneath) or to Darken.

Looking at the copied content, we're going to have to apply further transformations to the layer in order for it to match up correctly. Before applying these transformations, we'll turn the layer into a Smart Object by going to the Layer menu and choosing Smart Objects > Convert to Smart Object.

Now we'll use the Free Transform command in order to bend the content of the layer to match what's underneath. You can activate the Free Transform command by using the keyboard shortcut Command+T (Ctrl+T on Win). When the Free Transform handles are active, a crosshair will appear in the middle of the content you're transforming. You can click and drag on that crosshair to move it to a different location, defining the center anchor point for the transformation. We'll move that crosshair to an area where the layers DO line up. In our case, it's an area where the horizontal grout lines between the bricks line up. Then, we'll hold down

Shift+Option (Shift+Alt on Win) in order to keep the content aligned with the crosshair and we'll drag one of the corner transform handles to line up the layers. Once we're satisfied, we'll hit the Return/Enter key to lock in the transformation and then set the blending mode back to normal.

We'll use a layer mask to control where the layer shows up. In this case, we'd like to start with a black mask (one that hides the entire layer) and then use a white brush to paint in the areas where we want the layer to be visible. To create a layer mask that's black, hold down the Option key and then click on the Layer Mask icon at the bottom of the Layers panel. Then, we can paint with white over the garage door, bringing in parts of the layer that need to be used to hide the car. We can also hit the backslash key to show the mask as an overlay, which can sometimes help in seeing where we're painting on the mask.



We're painting on the layer mask in order to bring in the parts of the layer we need to hide the car.