Using Revu for Takeoff and Estimation

Software solutions for takeoff and estimation tend to be feature-laden and expensive. Traditional, paper-based takeoff is a tedious and error-prone process. Use Revu to accomplish most common takeoff and estimation tasks in a simple, customizable, affordable solution that does just what you need.

The estimation workflow essentially consists of three stages.

- Calibrate
- Estimate
- Summarize

This document will take you through all three.

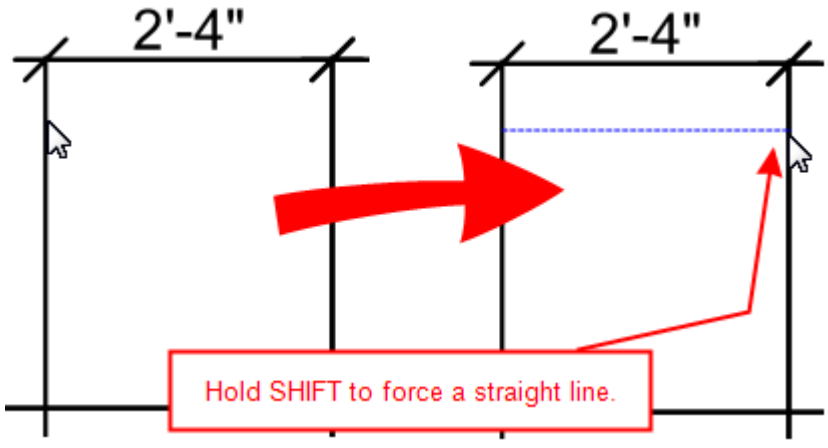
To begin, find the **Measurements** tab. It is typically located in the right dock. If you do not see the Measurements tab, you can access it from the menus.

- On the **View** menu, hover over **Tabs**.
- Click  **Measurements**.

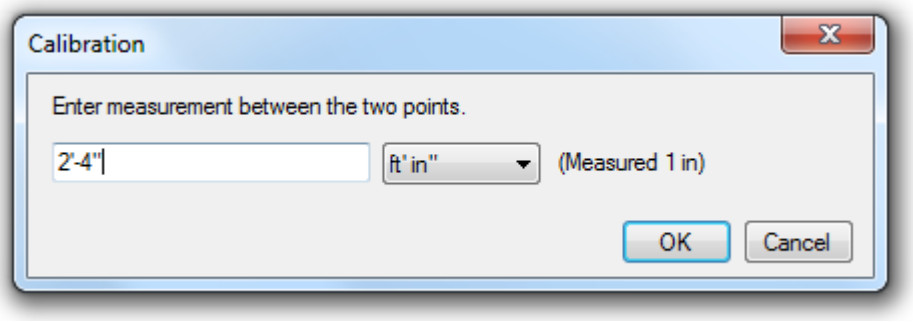
Calibrate

Even if you know the scale of the drawing, it is recommended to calibrate. That way, if the PDF was scanned or otherwise changed its scale, your measurements will still be accurate. Choose two points a known length apart and Revu will calibrate based on that defined length.

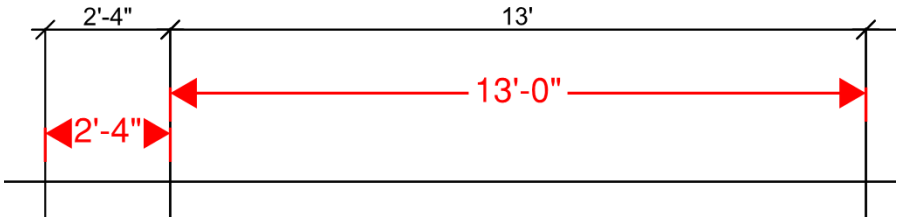
- On the **Measurements** tab, click the **Calibrate** button.
- You will be prompted to click two points on the PDF of a known length. Choose a labeled length. Click once to set the first point. Then hold down the **SHIFT** key to force a straight line while you click the second point.



- After the points are set, the Calibration dialog will appear. Enter the length that this measurement represents, then click **OK**.



Now test the calibration by measuring another labeled measurement elsewhere on the drawing. If the measurement matches, your document is correctly calibrated.



If you check the **Store Scale in Page** box, you will not have to calibrate this document again even if you close the program.

NOTE: If you change the scale after making measurements, click *Recalculate* **and all the measurements will automatically be adjusted to the new scale.**

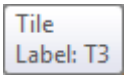
Estimate

First make a custom tool set with the tools you need. Bluebeam provides some standard Estimation tools to aid you in this process. To start out, download the Estimation Symbols tool set from http://www.bluebeam.com/us/support/extensions-tool-sets.asp.

Double-click the ZIP file. Depending on your version of Windows, you may have to extract the file. Once a window displays showing a file called Estimation Tools.btx, double-click the BTX file to open Revu. Revu will alert that the tool set has been imported successfully.

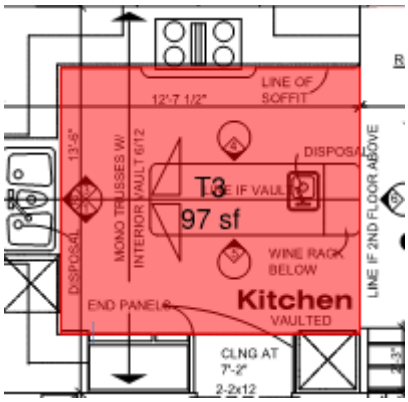
Click through the estimation symbols and try them out. If you find you need additional symbols to do your work, it is very easy to make and save new symbols. Start out by using the symbol that comes closest to what you want. For example, let's say you want to add a fourth type of tile takeoff.

- In the  **Tool Chest** tab, under **Estimation tools**, click the Tile takeoff symbol labeled  **T3**.

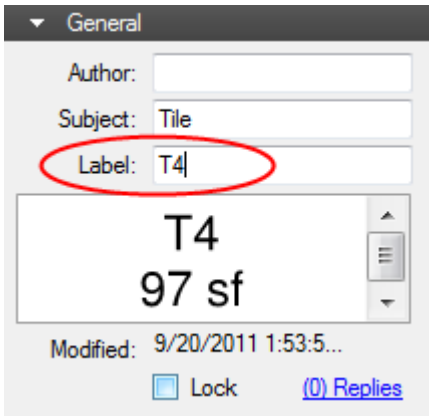
NOTE: To see the labels, hover over each symbol for a moment to reveal the 

tooltip.

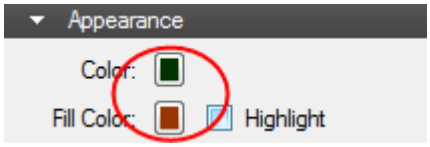
- Click and drag a **rectangle** to create a takeoff.



- With the takeoff markup selected, click the  **Properties** tab on the right dock. If you do not see the Properties tab, right-click the markup and then click  **Properties**.
- In the General section, click in the **Label** box and change the label to T4.

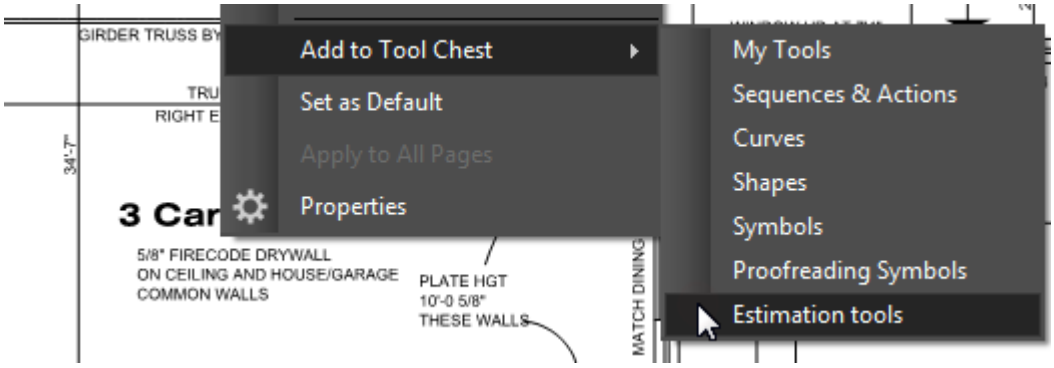


- Under the **Appearance** section, change the color. In this example we changed the line color to dark green and the fill color to brown.

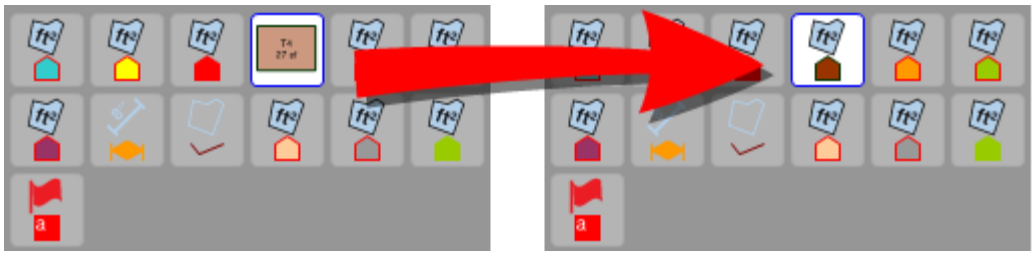


- Right-click on the markup once you are satisfied with its settings.

- In the context menu, hover over **Add to Tool Chest**, then click **Estimation tools**.



- A rectangular icon will appear in your **Estimation tools** tool set. Double-click this icon to change the markup to **Properties** mode. Your custom tool is now saved.

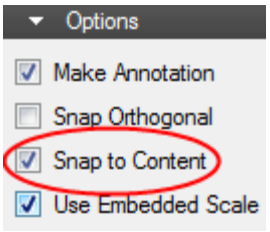


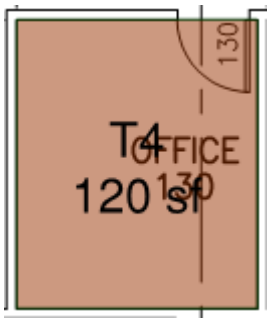
Repeat this process until you have generic tools for each takeoff. These are stored in your Profile, so if you want to share them with coworkers or use them on multiple computers, you can export your profile.

Making a Basic Takeoff

Performing takeoff in Revu is easy. Just find the area, perimeter, or length you need to measure, and use the correct tool from your tool set. In this example we'll use the tile takeoff we just created.

- In the  **Tool Chest** tab, under the **Estimation tools** section, click the  **T4** button.
- On the right dock, click the  **Measurements** tab.
- In the **Options** section, ensure that **Snap to Content** is checked.
- On the drawing, click and drag a rectangle to fill the room.

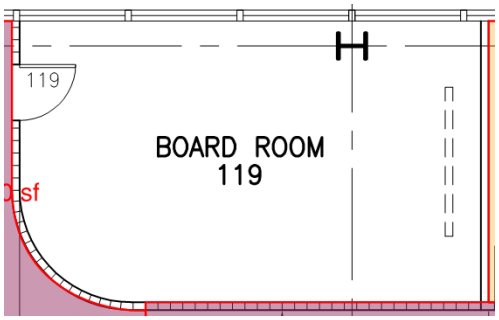




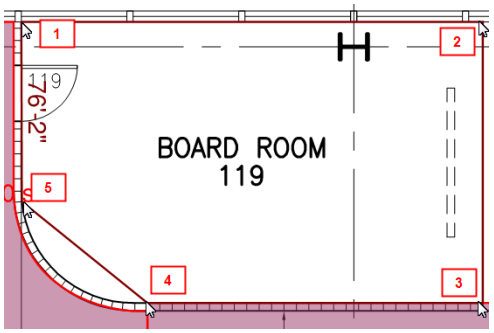
That's it! Your takeoff appears on the drawing with the label and square footage displayed.

Making a Curved Takeoff

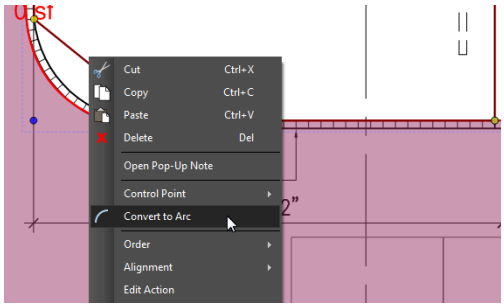
Often you'll need to measure areas, perimeters and lengths that are irregular or even curved. This is almost as easy as drawing a rectangle, once you know how to do it. Let's say you need the perimeter of a room with one curved wall.



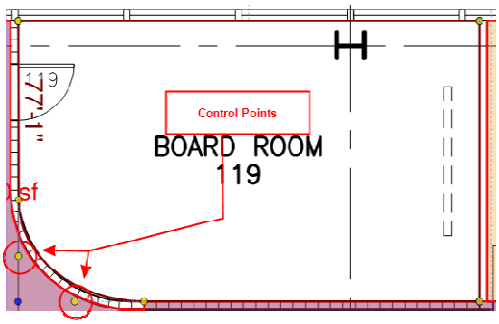
- In the  **Tool Chest** tab, under the **Estimation tools** section, click  **Edging**.
- Click once to set the first point, then click again and again to outline the shape, leaving the curve out.



- On the toolbar, click the  **Select** tool (or press **V** on the keyboard).
- Right-click on the side of the triangle that should be curved.



- On the context menu, click **Convert to Arc**. The straight line will arch.
- Click and drag the yellow **Control Points** to fine-tune the angle of the arch. The measurement will update automatically as you make changes.



More complex irregular shapes can be made by adding and subtracting control points. For more on how to measure in Revu, refer to http://bluebeam.com/us/_media/pdfs/tutorials/9/measurements.pdf.

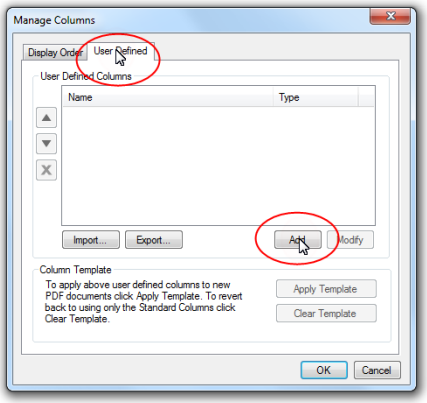
Assigning a Price

It is common to want to assign a unit price to an estimation tool. For instance, let's say Tile 4 costs $1.99 per square foot. Revu will automatically calculate how much you will need to spend on the carpeting you need.

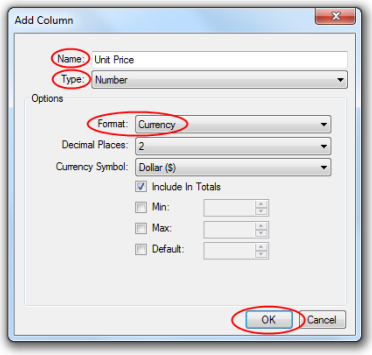
- In the  **Markups List** button bar, click  **Manage Columns**.

NOTE: The Markups List is located in the bottom dock. If you do not see it, click *View* > *Tabs* > *Markups***.**

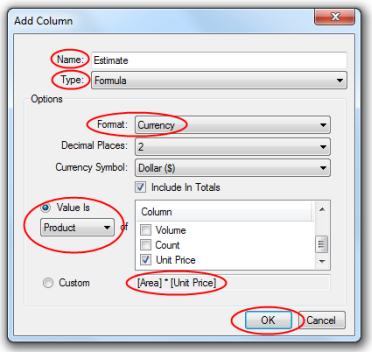
- Click the **User Defined** tab.
- Click **Add**.



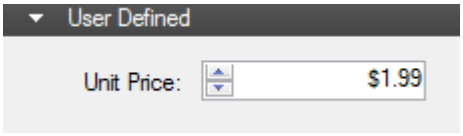
- Enter a name ("Unit Price").
- Click the **Type** list and then click **Number**.
- Click the **Format** list and then click **Currency**.
- Click **OK**.



- Click **Add** again.
- Enter a name (“Estimate”).
- Click the **Type** list and then click **Formula**.
- Click the **Format** list and then click **Currency**.
- Ensure the **Value Is** box is marked. Choose **Product** from the list, then check the boxes next to **Area** and **Unit Price**. This will define the value of this column as a calculation of the unit price times the area.



- Click **OK**, then click **OK** again.
- In the  **Tool Chest**, under **Estimation tools**, click  **T4**.
- In the  **Properties** tab, look under the **User Defined** section. You may have to click the **triangle** next to User Defined to see the section.
- In the **Unit Price** box, enter 1.99.

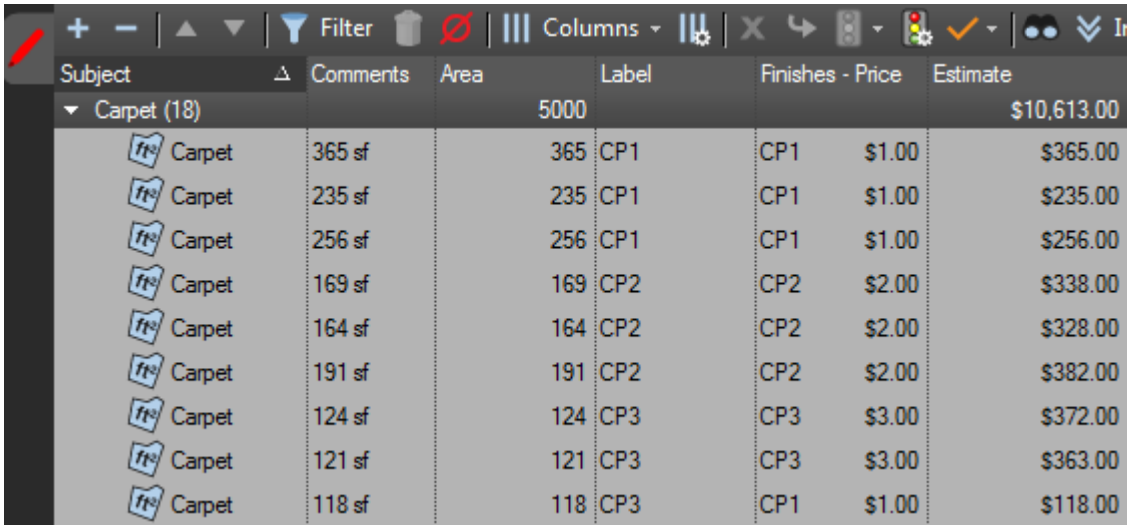


Now, make a takeoff using the Tile 4 tool.

- On the  **Markups List** button bar, click the  **Columns** button.
- Check the **Unit Price** and **Estimate** options.

In the Markups List, you should see the Unit Price reported as $1.99 and the Estimate reported as the product of the square footage you measured times $1.99.

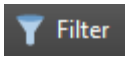
As you continue to make takeoffs, you will notice there is a running subtotal organized by whatever column is currently sorting. To change what is being subtotaled, simply sort by the desired column.



Subject	Comments	Area	Label	Finishes - Price		Estimate
Carpet (18)		5000				$10,613.00
Carpet	365 sf	365	CP1	CP1	$1.00	$365.00
Carpet	235 sf	235	CP1	CP1	$1.00	$235.00
Carpet	256 sf	256	CP1	CP1	$1.00	$256.00
Carpet	169 sf	169	CP2	CP2	$2.00	$338.00
Carpet	164 sf	164	CP2	CP2	$2.00	$328.00
Carpet	191 sf	191	CP2	CP2	$2.00	$382.00
Carpet	124 sf	124	CP3	CP3	$3.00	$372.00
Carpet	121 sf	121	CP3	CP3	$3.00	$363.00
Carpet	118 sf	118	CP3	CP1	$1.00	$118.00

Filtering your Takeoffs

The filter is an easy way to emphasize or hide certain parts of your estimate. This way you can focus on all the Carpeting, for example, while hiding all the Tile and other takeoffs.

- On the **Markups List** button bar, click 

Filter.
- Click the down  **triangle** next to the Subject column, then click **Carpet**.

Only the Carpet markups will be visible in the Markups List, and on the drawing other markups will appear grayed out.

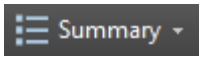
Summarize

Now it is time to summarize your estimate. You can do this in several ways. You can export the data to Excel or other spreadsheet programs using a CSV or XML export, or you can output a PDF summary that can either be appended to the drawing you are working on or made into a separate file.

If your company has an existing Excel-based workflow for estimation, you will want to use the data export using either CSV or XML.

Exporting using XML or CSV

Note that Revu always outputs two extra columns of data that are used internally but have little use outside of the Revu program, so when exporting to Excel via either of these methods, you will want to hide the first two columns of the import. This can be done before or after the import is performed, but it must be done inside Excel. For more information on Excel, please refer to Microsoft's documentation.

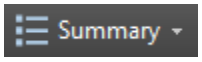
- On the **Markups List** button bar, click 

Summary, then click **XML** (or **CSV**) **Summary**.
- Enter the range of pages you want summarized and click **OK**.
- Chose a location to save the file, such as your Desktop, and click **OK**.

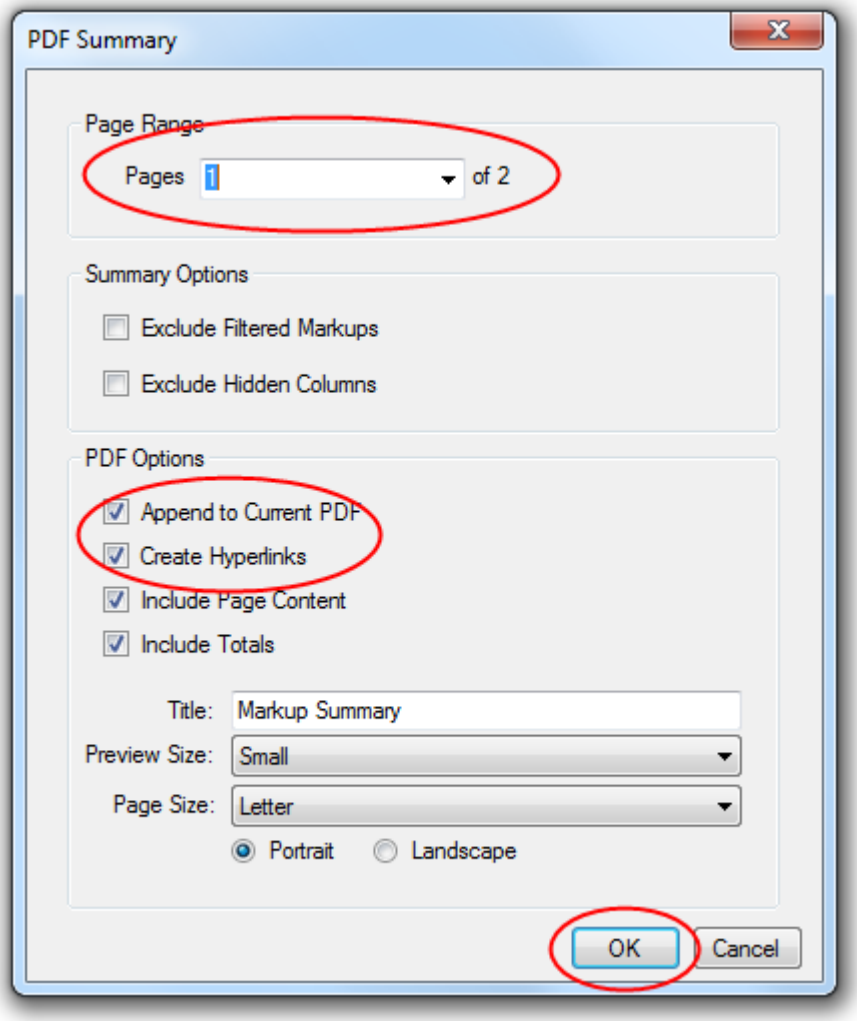
Exporting a PDF Summary

Exporting a PDF summary is an attractive and useful option that many customers prefer.

A PDF summary of the Markups List includes a thumbnail preview of each markup along with the estimation data you've created. PDF summaries that are appended to the original PDF also include a hyperlink to the original markup. That way, as you are scrolling through the estimate, if you want to jump back to the original drawing to check a measurement or see a larger context, a click will take you there. To create a PDF summary and append it to your estimate drawing, perform the following steps.

- On the  **Markups List** button bar, click 

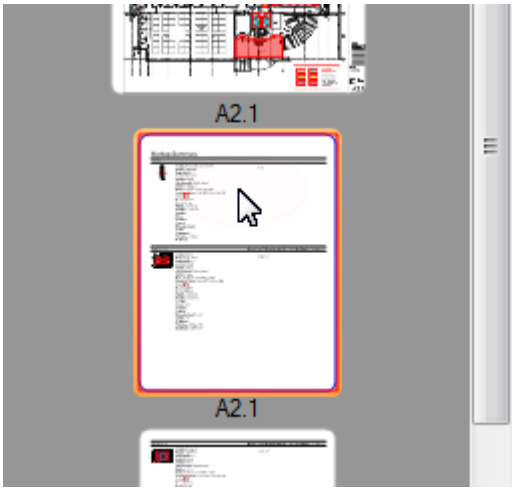
Summary then click **PDF Summary**.



- In the **Page Range** section of the PDF Summary window, you can choose which pages to summarize.
- In the **Summary Options** section, you can choose to **Exclude Filtered Markups** or **Exclude Hidden Columns**, if you wish for that information to be left out of the summary.
- In the **PDF Options** section, check the **Append to Current PDF** box. Ensure the **Create Hyperlinks** box is checked.
- Click **OK**.

The summary will be created and appended. To view the summary, click the **Thumbnails** tab.

- On the **View** menu, hover over **Tabs** and then click **Thumbnails**.
- In the **Thumbnails** tab, a series of pages will appear. Click a summary page to jump to it in the workspace.



- On the summary, each takeoff appears next to a display of data related to it. Click the markup to jump to that area of the original drawing.