

## Chapter 4

### Tutorial: Getting Data into Your Spreadsheet

**Summary:** Getting information into Excel is similar to working with a Word document. To enter text and data, you can simply click on the cell and begin typing. If you're working with Excel 2016, which we will be using for this tutorial, the number or character will be displayed in the cell itself and with the formula bar just below the ribbon. (NOTE: the concepts are the same for other spreadsheets.) This might come in handy if you're building your own database or plugging in data to calculate key numbers in the government's announced spending increase.

Dealing with material from the web is just as easy: it is simply a matter of copying, pasting, and removing the formatting to make the numbers and text easier to read.

For this tutorial, we will work with data from Phase 1 of the federal government's infrastructure program.

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# Infrastructure Canada

Canada

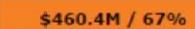
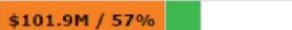
Investing in Canada | 2014 New Building Canada Plan | New Champlain Bridge | Investments Map | Programs

Project Profiles | Video Gallery

## Phase 1 Investments

See how investment in [Clean Water and Wastewater Fund](#) and [Public Transit Infrastructure Fund](#) are being used in your province and municipality.

 CWWF
  PTIF

Province/Territory	Agreement Signed	Funding Approved	Project List
Alberta	 <a href="#">View Agreement</a>		<a href="#">Alberta Project List</a>
British Columbia	 <a href="#">View Agreement</a>		<a href="#">British Columbia Project List</a>
Manitoba	 <a href="#">View Agreement</a>		<a href="#">Manitoba Project List</a>
New Brunswick	 <a href="#">View</a>		<a href="#">New Brunswick Project List</a>

### What you will learn:

1. Entering text or numbers into a spreadsheet
2. Copy and pasting material from a website
3. Reformatting the copied material once it's in Excel

### Task 1: Entering text or numbers into a spreadsheet

Let's work with the Alberta Project List. Click on the link to obtain the list of approved projects.

Infrastructure Canada Canada

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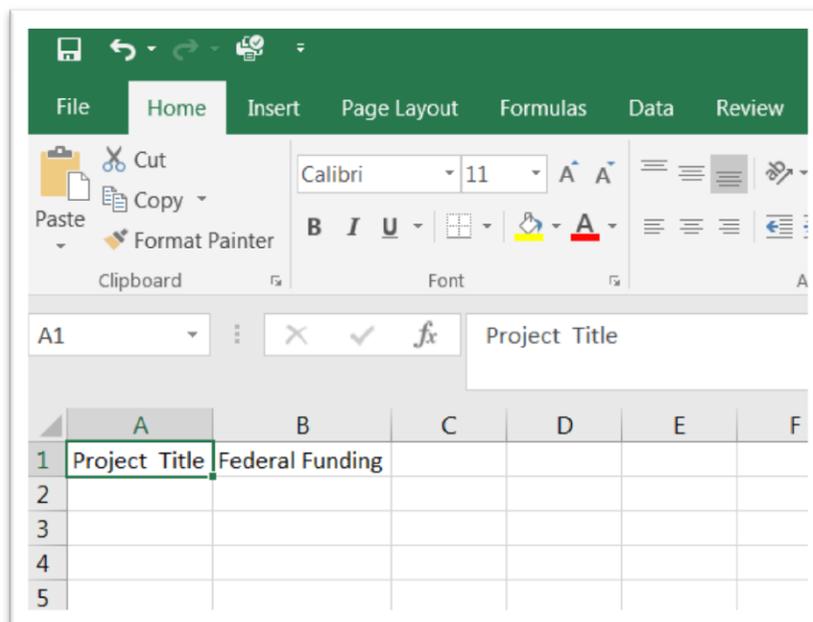
Project Profiles | Video Gallery

### Phase 1: Infrastructure Projects in Alberta

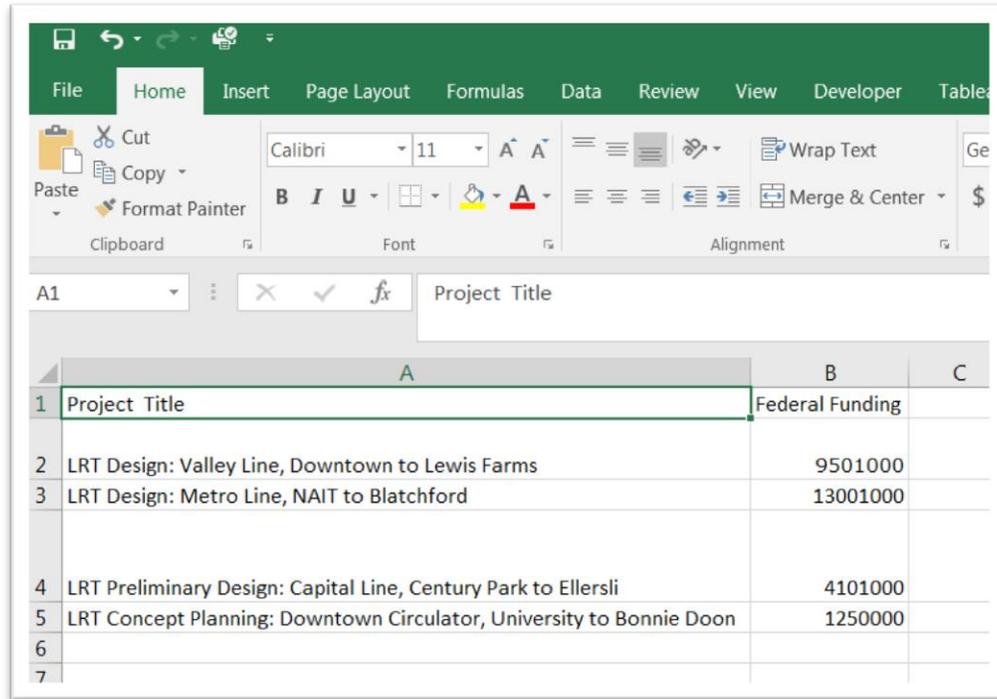
Clean Water and Wastewater Fund (CWWF) / Public Transit Infrastructure Fund (PTIF)

Project Location	Project Title	Federal Funding	Fund	Approved	In Progress	Completed
Calgary	17 Ave SE BRT - Phase 2	\$42,500,000	PTIF			
Calgary	Light Rail Transit (LRT) station refurbishment	\$13,485,000	PTIF			
Calgary	Light Rail Vehicles (LRVs)	\$12,500,000	PTIF			
Edmonton	LRT Design: Valley Line, Downtown to Lewis Farms	\$9,501,000	PTIF			
Edmonton	LRT Design: Metro Line, NAIT to Blatchford	\$13,001,000	PTIF			
Edmonton	LRT Preliminary Design: Capital Line, Century Park to Ellerslie	\$4,101,000	PTIF			
Edmonton	LRT Concept Planning: Downtown Circulator, University to Bonnie Doon	\$1,250,000	PTIF			

Let's say all we wanted was to perform a quick calculation for four Edmonton projects in advance of an interview we're about to do with that city's mayor, Don Iveson. We'll create a table with two columns, the first with the project title and the second with the federal funding. Click on cell A1 and type the title for the first column. Type the title for the second column in cell B1.



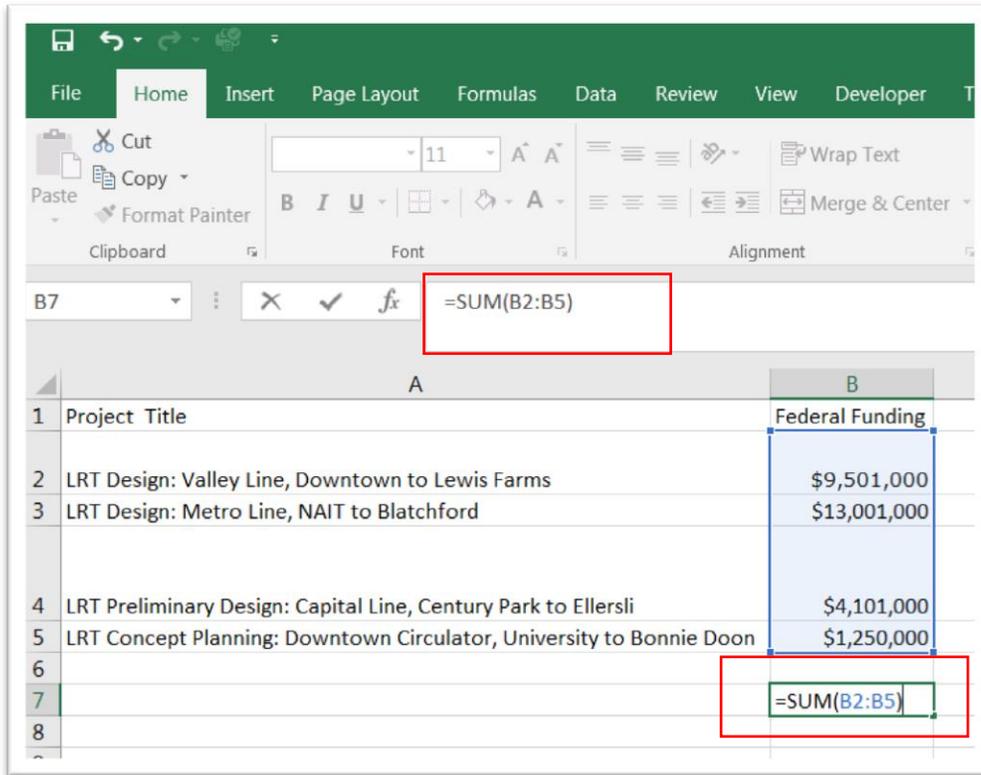
Now double click inside the cells under both columns to enter the text and numbers. Be sure that you adjust the column widths in order to see all the text. You can do this by placing your cursor on the border between column A and B, waiting for it to turn from a fat white cross into a black one, and then manually adjusting the width.



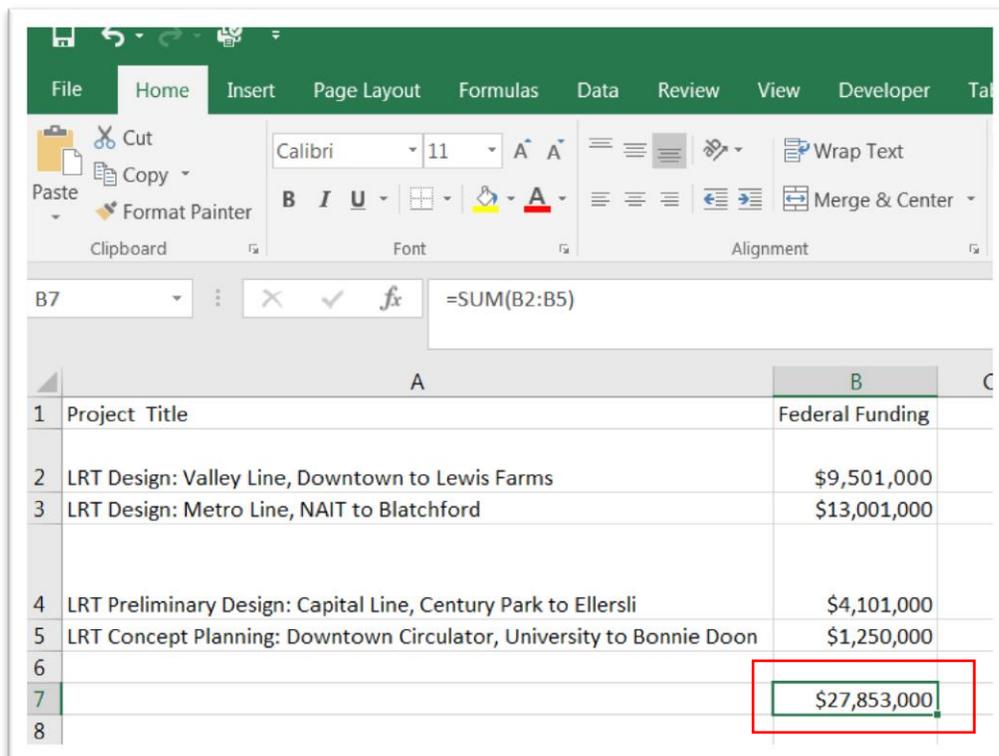
	A	B	C
1	Project Title	Federal Funding	
2	LRT Design: Valley Line, Downtown to Lewis Farms	9501000	
3	LRT Design: Metro Line, NAIT to Blatchford	13001000	
4	LRT Preliminary Design: Capital Line, Century Park to Ellersli	4101000	
5	LRT Concept Planning: Downtown Circulator, University to Bonnie Doon	1250000	
6			
7			

A quick word about the alignment: in a spreadsheet, text aligns to the left and numbers align to the right. If the numbers are left-justified, it means that the spreadsheet is reading them as text, in which case you'll have to format them as numbers. In the case shown above, Excel is reading them as numbers, so we only have to reformat the numbers as currency. This can be accomplished by right-clicking to access your shortcut menu, going to the formatting tab, and specifying currency with no decimal places.

To obtain the total for the four projects, we can simply use the SUM function in cell B7. Begin with the "=" sign to indicate a formula, then the function name—in this case, SUM—then an open parenthesis, the cell range to be included in the calculation, followed by a closed parenthesis.



Again, notice that you can also see the function in Excel's formula bar. Hit enter to obtain the figure.



So, the four projects are worth about \$27.8 million, a significant amount that we can use in the conversation with the mayor. You'll also notice that the formula is still the formula bar, despite the fact that we have calculated the amount in cell B7. (NOTE: we will have more to say about the formulas behind the numbers in our paste special tutorial.)

**Task 2: Copy and pasting material from a website**

Because the infrastructure file is in HTML format, you can also highlight the entire table and paste it into Excel, just like you would in a Word document.

Select and copy the table.

The screenshot shows a website interface with a navigation bar at the top containing links for 'Investing in Canada', '2014 New Building Canada Plan', 'New Champlain Bridge', 'Investments Map', and 'Programs'. Below this are 'Project Profiles' and 'Video Gallery' tabs. The main heading is 'Phase 1: Infrastructure Projects in Alberta'. There are two filter icons: a green circle with a 'C' for 'Clean Water and Wastewater Fund (CWWF)' and a red circle with a 'T' for 'Public Transit Infrastructure Fund (PTIF)'. The table below lists seven projects, with the 'Approved' and 'In Progress' columns highlighted in orange.

Project Location	Project Title	Federal Funding	Fund	Approved	In Progress *	Completed
Calgary	17 Ave SE BRT - Phase 2	\$42,500,000	PTIF			
Calgary	Light Rail Transit (LRT) station refurbishment	\$13,485,000	PTIF			
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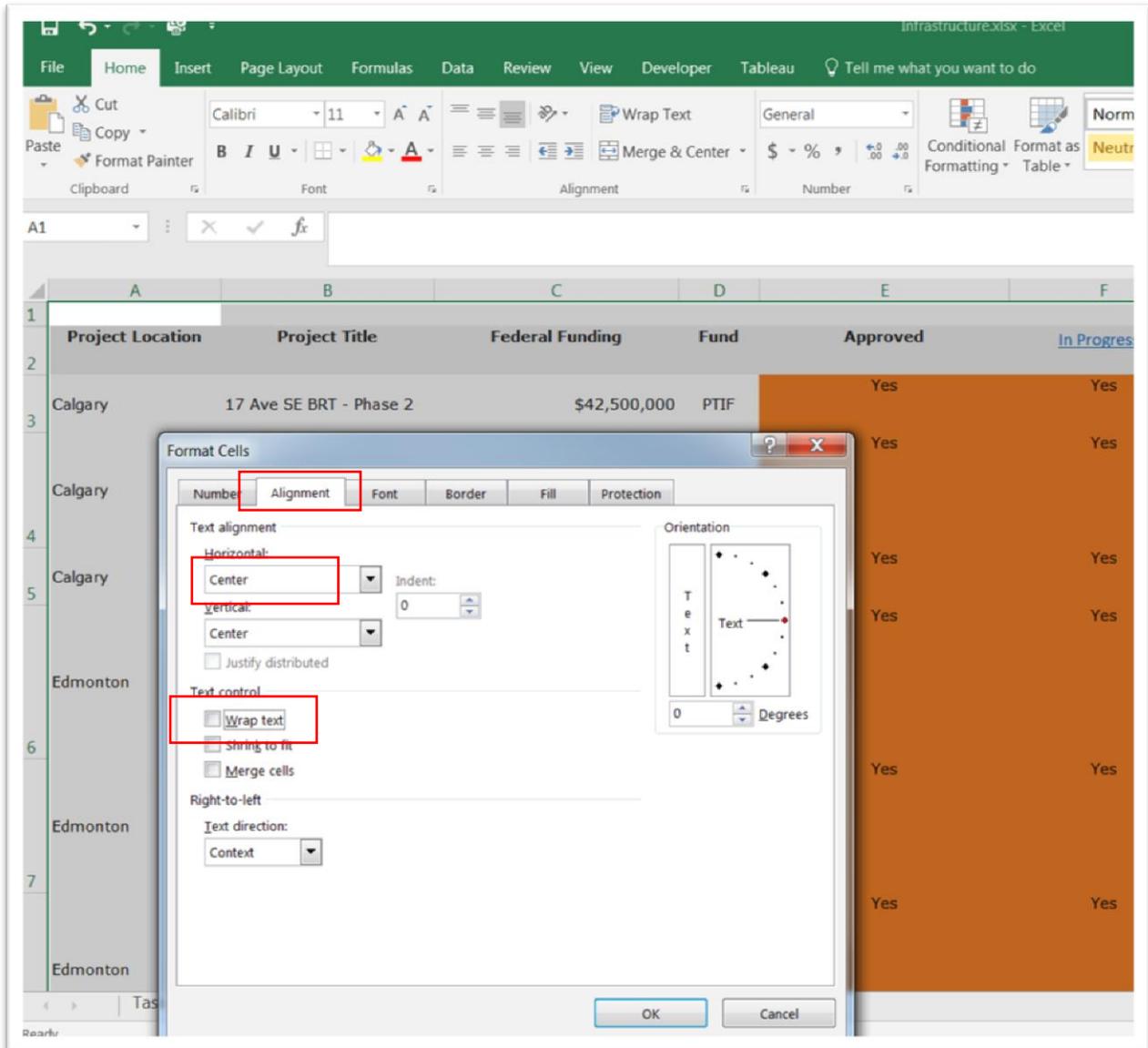
Paste it into a new Excel worksheet and adjust the column widths to ensure that you can see all the contents.

The screenshot shows an Excel spreadsheet titled 'Infrastructure.xlsx' with the following data:

Project Location	Project Title	Federal Funding	Fund	Approved	In Progress*	Completed
Calgary	17 Ave SE BRT - Phase 2	\$42,500,000	PTIF	Yes	Yes	No
Calgary	Light Rail Transit (LRT) station refurbishment	\$13,485,000	PTIF	Yes	Yes	No
Calgary	Light Rail Vehicles (LRVs)	\$12,500,000	PTIF	Yes	Yes	No
Edmonton	LRT Design: Valley Line, Downtown to Lewis Farms	\$9,501,000	PTIF	Yes	Yes	No
Edmonton	LRT Design: Metro Line, NAIT to Blatchford	\$13,001,000	PTIF	Yes	Yes	No
Edmonton	LRT Preliminary Design: Capital Line, Century Park	\$4,101,000	PTIF	Yes	Yes	No

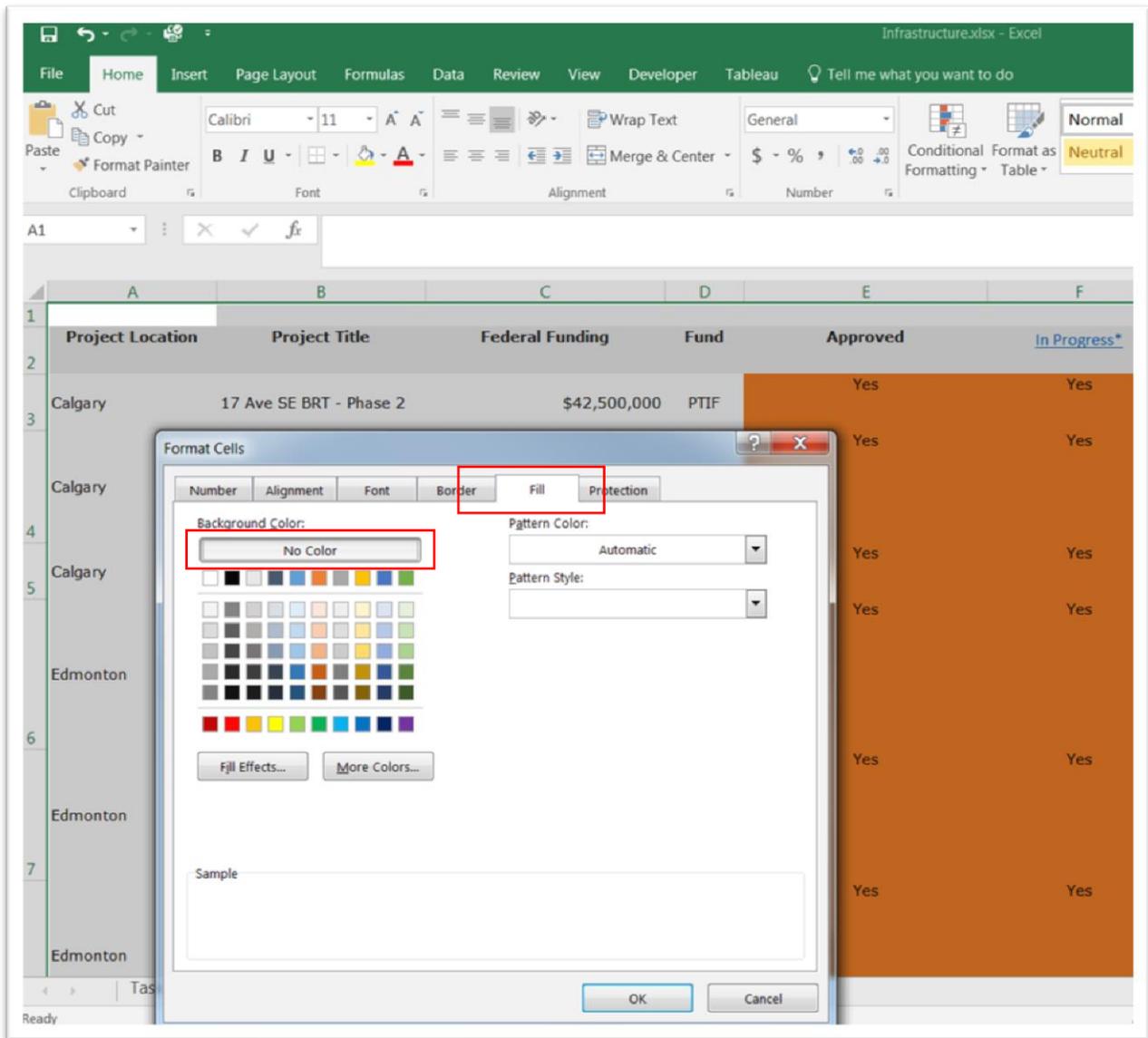
When copying from a website, the content maintains the formatting, which includes the text wrap, font size, style, hyperlinks, and fill colour. This is fine to work with, though removing the formatting makes it a bit easier to see more of the content at once, especially when you're working with a large file. Either right-click to obtain the "formatting" option or obtain it from your spreadsheet's menu.

The numbers are fine, so click on the "Alignment" tab.

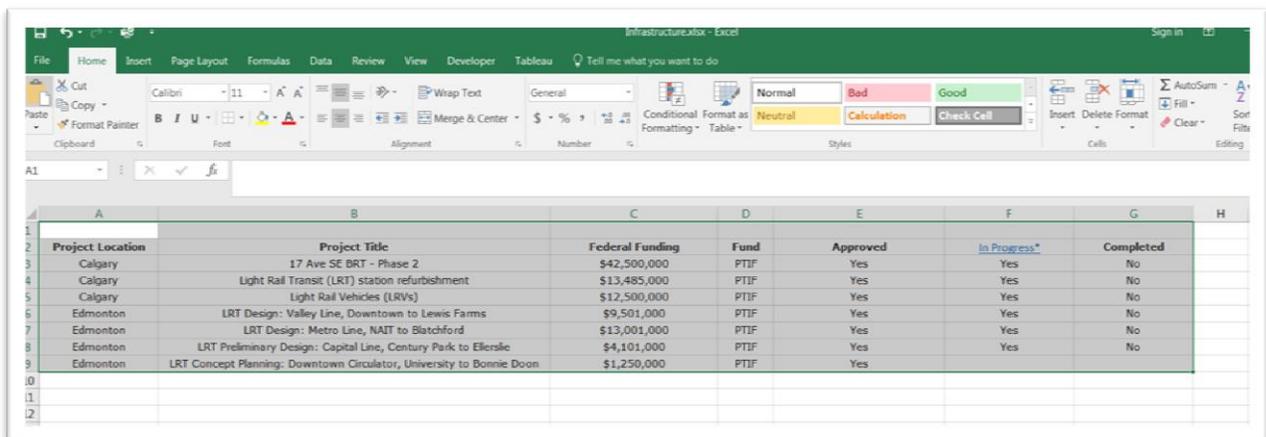


Under the “Text alignment” option we have selected “Center” for the horizontal and vertical configurations and de-selected “Wrap text”.

To remove the colour from the two columns to the right, select the “Fill” tab and the “No Color” option.



Click "OK" to return to the table, and adjust the column widths if necessary.



Now we can perform the same calculations we carried out in **Task 1**.

Thankfully, as we learned in chapter 2, more governments are making data available on their open data websites. This means that an increasing number of these files are available in formats that can be uploaded to a spreadsheet, making it possible to begin working with the data much more quickly and with very little clean-up. Still, there are many instances when we want to get material into a spreadsheet, not necessarily to conduct an in-depth analysis, but simply to do a quick calculation before an interview with the Edmonton mayor, or any other officials we are about to contact.