System Administrator's Guide

Populating the
Supplier Materials Database

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Purpose

The purpose of this document to provide new Systems Administrators with step-by-step instructions for setting up the required *Supplier Materials Database* in SmartBuild. In addition to this help document, you will need to download two additional files to guide you through this process:

1. ***SmartBuild Materials DB Template*** – This is a Microsoft Excel spreadsheet into which you will enter your materials data for uploading into SmartBuild. The template is color coded to make it easy to recognize the requirements and options for each type of material data to be entered. Please download this template now by clicking here.

2. ***SmartBuild Materials DB Template Examples*** – This Microsoft Excel spreadsheet is identical to the template file in every respect, except that it PROVIDES EXAMPLES of the kinds of data typically entered into EVERY COLUMN of EVERY WORKSHEET contained in the template. If you need additional guidance (beyond this PDF document) on the type of data to be entered into the template file, use the examples provided in this file as a reference. Please download this examples file now by clicking here.

When the processes outlined in this document have been completed, SmartBuild will have all of the materials data required to produce highly accurate job quotes and material takeoffs.

CRITICAL – HEADS UP SYSTEMS ADMINISTRATORS! Populating the *Supplier Materials Database* is a detail-oriented operation that requires planning and precision. Much like constructing the foundation of a new building, if you do it right, it will speed all of the other tasks that follow and your outcomes will be great. If you do it incorrectly, absolutely nothing else is going to work out well. TAKE YOUR TIME! DO IT RIGHT! This document, combined with the *SmartBuild Materials DB Template* and the *SmartBuild Materials DB Template Examples* will provide you with everything you need to be successful. As always, ASK US IF YOU NEED HELP at support@keymark.com

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The Four Steps

There are four basic steps to complete in order to populate the *Primary Supplier Materials Database*. This is the database that will sit at the top of your SmartBuild hierarchy, and it will feed all of the other *Builders* and/or *Suppliers* added below it. We suggest that you complete each of these steps in the order presented.

STEP 1: Understand data and process requirements by reading the first 16 pages of this document in their entirety!

STEP 2: Identify and gather the needed data from existing sources within your organization.

STEP 3: Copy and paste the gathered data into the *SmartBuild Materials DB Template* and groom.

STEP 4: Upload completed template files to SmartBuild.

How Long Will It Take

When it comes to setting up your *Supplier Materials Database,* the question we most often hear from System Administrators (and their supervisors) is, "How long will it take?" As with all things in life, it depends. Here are the principle factors that will affect your implementation time:

- **Number of Materials** – Obviously, the greater the number of materials offered by your company, the greater the amount of time it will take to collect, organize, and transfer their associated data into the *SmartBuild Materials DB Template*.

- **Feature Set** – The *Supplier Materials Database* includes both <u>required</u> data, and <u>optional</u> data that can be implemented at the user's discretion. The more comprehensive the data set to be implemented, the longer that implementation will take. We will discuss feature options a little later in this document to help you decide the approach that best achieves your organization's identified goals for SmartBuild.

- **Previous Experience** – The more familiar the Systems Administrator is with basic spreadsheet operations (navigation, copy, paste, etc.) the faster and easier it will be to get the needed data into the *SmartBuild Materials DB Template*.

- **Degree of Organization** – If your organization's materials-inventory data is currently well organized and maintained, the process of transferring that data into the *SmartBuild Materials DB Template* will be relatively easy and straightforward. If, however, your materials-inventory data is poorly organized and/or maintained, it could require you to address these issues before you begin.

A Note about Maintenance

It is worth mentioning here that materials <u>can</u> be added to your *Supplier Materials Database* one at a time through the SmartBuild interface. You can also `Edit` and `Delete` materials once they have been entered into the database. These are considered "maintenance functions." It is neither efficient nor cost effective to attempt to populate your entire *Supplier Materials Database* one object at a time. For further information on these maintenance functions, please see *Maintaining the Supplier Materials Database*.

Classification of Materials

Before beginning the process of populating your *Supplier Materials Database*, it is important to understand how materials will be organized and classified. To help your users locate materials quickly and easily within the SmartBuild interface, all materials entered into the *Supplier Materials Database* are classified by both `Type` and `Category`. Each material is assigned to one of three potential *Material Types*, and these three *Material Types* are further subdivided into 19 different *Material Categories*, as outlined in the following paragraphs.

MATERIAL TYPES AND CATEGORIES

Base Materials – *Base Materials* include all `Framing`, `Sheathing` and `Trim`. In SmartBuild, these are the materials that are displayed within the 2D and 3D renderings of a model. A model cannot be displayed within the SmartBuild interface until *Base Materials* have been added to the *Materials Database*.

Ancillary Materials – All physical materials other than `Framing`, `Sheathing` and `Trim` are classified as *Ancillary Materials*.

Material Services – These are in-house or third-party services that may add to the calculation of your material costs. *Material Services* include `Labor` and `Freight`.

With this system of classification in mind, let's take a quick look at the *SmartBuild Materials DB Template* to see directly how these *Material Categories* will come in to play as we populate the *Materials Database*. If you have not already downloaded the template file, please do so now by clicking here. If you don't have your computer handy, not to worry. You can easily follow along using the illustrations provided in this document.

MATERIAL TYPE	MATERIAL CATEGORY
BASE MATERIALS	Framing
	Sheathing
	Trim
ANCILLARY MATERIALS	Foundation
	WalkDoors
	WalkDoor Hardware
	Overhead Doors
	Overhead Hardware
	Sliders
	Slider Hardware
	Windows
	Window Hardware
	Cupolas
	Cupola Hardware
	Connectors
	Fasteners
	Hardware [Other]
MATERIAL SERVICES	Labor
	Freight

Table 1: The classification of materials in SmartBuild.

NOTE – Before proceeding further, it is important to note that this document assumes that the user (Systems Administrator) has at least some basic knowledge about how to navigate and enter data into a spreadsheet. If this is not the case, we suggest that you enlist the services of someone within your organization who is familiar with these basic spreadsheet functions.

Opening the Template File

WORKBOOK TABS

When you first open the *SmartBuild Materials DB Template* file, you will see that it contains 21 worksheets, indicated by the 21 tabs at the bottom of the Excel window. (See `Figure 1` below.) Note that all 21 tabs in the template are colored either red or yellow. These TAB COLORS are used to indicate the following:

Red = Each red tab contains one or more columns of data that are REQUIRED in order for SmartBuild to function. Of the 21 tabs in the template, only FOUR tabs are REQUIRED – `Framing`, `Colors`, `Sheathing` and `Trim`. (See `Figure 1` below.)

Yellow = Every yellow tab is classified as OPTIONAL. That is, the data associated with that tab is NOT required in order for SmartBuild to function. If you elect to include an OPTIONAL TAB of data in an `Upload` to your *Supplier Materials Database*, some of the COLUMNS within that tab may themselves then be REQUIRED even though the tab as a whole is not. (See *Worksheet Column Headers* below.)
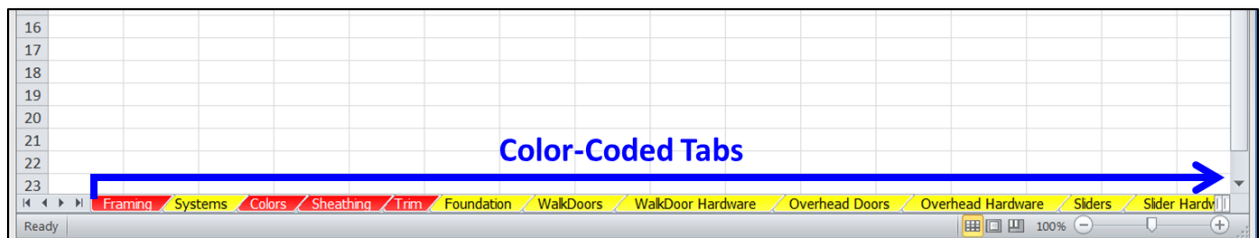

Figure 1: The *SmartBuild Materials DB Template* contains 21 color-coded worksheets (tabs).

> **NOTE** – All but two tabs in the template relate directly back to the *Material Categories* outlined in `Table 1` on page 6. The other two tabs (`Systems` and `Colors`) will be used to enter "metadata" – that is, data that applies to materials across multiple *Material Categories*. (More on this metadata later in this document.)

WORKSHEET COLUMN HEADERS

As you can see in `Figure 2` (below), like the tabs, the COLUMN HEADERS at the top of each worksheet are also color coded. The color codes for column headers is as follows:

Red = **REQUIRED** (YOU must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)
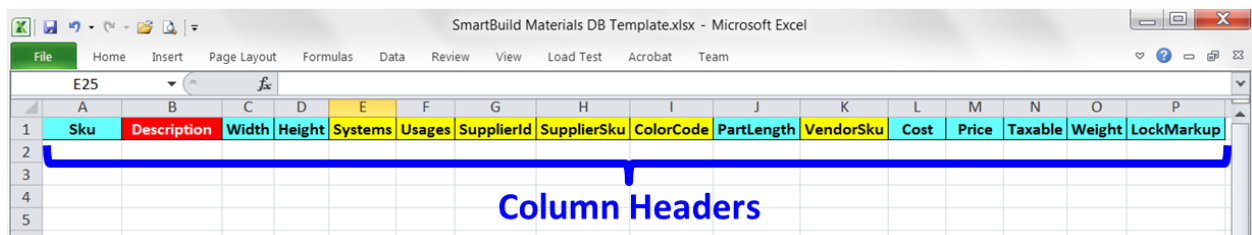

Figure 2: These are the columns and column headers listed on the `Trim` tab of the template.

NOTE – If you elect to upload data from an OPTIONAL TAB in the template, you must – *at a minimum* – populate the REQUIRED COLUMNS of data for each line item. Failure to do so will result in errors during the `Upload` process.

As we will discuss a little later, even though the YELLOW TABS (`Figure 1`) are OPTIONAL, populating and uploading data using these tabs will further increase the accuracy and efficiency of your SmartBuild outputs. For example, your takeoffs and price quotes will be more accurate and complete if your *Supplier Materials Database* includes specifications for materials like `Fasteners`, `Windows` and `Doors`, let alone calculations for `Labor` and `Freight` costs. However, once again, this data is not required for SmartBuild to function properly.

Tabs (Worksheets) in the Excel Template

Before we turn to details about working with each tab in the template, please take a moment to review the information presented in `Table 2`. It provides an overview of the COMPLETE CONTENTS of the *SmartBuild Materials DB Template*, and should give you a better sense of the scope of the task at hand:

TAB NAME	Required Tab?	# Required Columns	# Optional w/ Defaults	# Optional Columns	# Reserved Columns	Total Columns
Framing	Yes	3	7	4	0	14
Systems	No	1	1	0	0	2
Colors	Yes	2	1	1	1	5
Sheathing	Yes	2	8	10	0	20
Trim	Yes	1	9	6	0	16
Foundation	No	1	6	3	0	10
WalkDoors	No	3	6	2	0	11
WalkDoor Hardware	No	1	6	2	0	9
Overhead Doors	No	3	6	2	0	11
Overhead Hardware	No	1	6	2	0	9
Sliders	No	3	6	2	0	11
Slider Hardware	No	1	6	2	0	9
Windows	No	3	2	6	0	11
Window Hardware	No	1	6	2	0	9
Cupolas	No	4	6	2	0	12
Cupola Hardware	No	1	6	2	0	9
Connectors	No	1	6	2	0	9
Fasteners	No	1	6	4	0	11
Hardware	No	1	6	2	0	9
Labor	No	1	5	2	0	8
Freight	No	1	5	2	0	8
21 TABS		**36**	**116**	**60**	**1**	**213**

A Final Note about Planning

When it comes to planning the implementation of your *Supplier Materials Database*, `Table 2` gives you a good sense of the potential range scope and effort involved:

- **Minimum Implementation** – The absolute minimum implementation requires completion of FOUR *required* tabs with a total of <u>8</u> *required* columns of data.

- **Full Implementation** – A full implementation of all nine tabs of data, including *Optional* columns, would total <u>213</u> columns of data.

Suffice it to say that most implementations of the *Supplier Materials Database* fall somewhere between the extremes of *minimum* and *full*. In the following pages, we will provide additional details about each tab in the *SmartBuild Materials DB Template*. With this information in hand, you can then track down your data sources and get a much better sense of the *Material Database* options you want to consider, and the amount of time and effort likely to be involved in their implementation.

Deciding on Scope

Now that you know the <u>minimum</u> requirements to implement your *Materials Database*, you can work with your employer to define an implementation plan. Here are some things to consider:

- Initially, you want to focus on adding optional *Material Categories* based on the immediate demands of your "downstream" users. Remember that the *Builders* and/or *Suppliers* that you add to SmartBuild later will receive a copy of this, your original *Supplier Materials Database*.

- You can implement your *Supplier Materials Database* in multiple phases, adding *Material Categories* as you go. If you do, we highly recommend that you commit your proposed implementation schedule to writing and do your best to stick to it.

- Though we would argue that the benefits far outweigh the costs, implementing additional features will, by definition, add to the initial time requirements of your implementation.

- The sooner you adopt additional functions (that is, add additional *Material Categories* to your *Materials Database*), the sooner and greater the benefit that will be achieved from your investment in SmartBuild.

- When it comes to the *Supplier Materials Database*, sometimes it is easiest to simply get it all done "while you are at it." That said, the demands of a productive workplace may prevent or interrupt your progress. Do your best to plan accordingly.

Identifying Sources & Gathering Data

After you have read the first 16 pages of this document <u>*in their entirety*</u>, the second step in populating your *Supplier Materials Database* is to identify the sources of data within your organization that will be needed to populate the database. Depending on the size and structure of your organization, this may be an activity you can pursue on your own, or it may require the participation of multiple people and/or departments. At a minimum, you are going to be seeking out information about your materials inventory; all of the `Framing`, `Sheathing`, `Trim` and various other materials you offer to your customers. In addition to this, if you elect to add `Labor` and `Freight` data, you will need access to financial data that may be held by your Accounting Department.

We suggest that, as you read through this document and decide on an implementation plan, you write down the specific <u>tabs</u> of data you will be populating in the *Materials DB Template* AND the specific <u>columns</u> of data within each tab you will include. With this list in hand, you can go shopping around the office to discover where the needed nuggets of information are currently stored. You may find that the needed data is currently stored in multiple software programs, or you may get lucky and find most of what you need in one spot. Likely software candidates for your source data may include *Microsoft Excel*, *Microsoft Access*, *QuickBooks*, *Spruce*, *Paradigm*, *Epicor*, etc.

Regardless of your software source(s), the objective is to export the target data (copy, save, export – whatever it takes) and get it loaded (pasted) into the *SmartBuild Materials DB Template* file. Exactly how System Administrators get this job done will vary greatly by company, depending on the software products serving as data sources. It is, therefore, extremely difficult to provide guidance on the specific steps you will need to undertake. Here are some basic options and suggestions to consider when gathering data from your sources:

- We suggest you work with filling out and uploading ONE TAB (worksheet) of data at a time. This approach will:

    - ✓ Break the project down into smaller, more manageable tasks
    - ✓ Increase your efficiency at each stage, once you understand the overall process
    - ✓ Build confidence with each successive, successful upload
    - ✓ Provide you with an opportunity to modify your implementation plan if you find things either easier or more challenging than you anticipated
    - ✓ Make it easier to know exactly where you left off (in case you get interrupted)
    - ✓ Keep any one portion of the task from becoming too boring or intimidating

- While working on a single tab in the template, `Copy` and `Paste` data from your source into the template ONE COLUMN AT A TIME – from top to bottom. Whether you have the computer skills to copy an entire column of data with a couple of mouse clicks, or you require a more "methodical" approach, DO NOT start on that next column of data until you have finished the one you are on.

- If you are <u>exporting</u> data from a source application, save the exported file in CSV or XLSX format, as these file formats are unlikely to introduce unwanted formatting code when copying and pasting the data into the *Materials DB Template*.

- If you are <u>copying</u> data from a source application and pasting it into a temporary file (for collection and consolidation purposes) before transferring it to the *Materials DB Template*, consider using a spreadsheet or another application that can save the temporary file in CSV or XLSX format. (Once again, for data-format compatibility reasons.)

- If you are <u>copying</u> data from a source application and pasting it directly into the *Materials DB Template*, you may want to consider the interim step of pasting the data into *Microsoft Notepad* first, and THEN copying and pasting the data from *Notepad* into the template. This will strip out any unwanted formatting from the source application that may otherwise interfere with the proper `Upload` of the data into SmartBuild.

- You are going to be dealing with a lot of data and, most likely, multiple source files. MAKE YOUR LIFE EASIER and manage your source-data files aggressively:

  - ✓ Keep your source files organized. Give them logical, informative names and store them together in a location on your computer that is easy to access.

  - ✓ Keep a clean *EXTRA* copy of each source file until you have successfully uploaded the associated tab(s) of information into SmartBuild. That will keep you from having to go all the way back to the data source for another copy if something fails to go as planned.

  - ✓ Delete your used source files when you are done with them. Once their data has been copied into the *Materials DB Template* and uploaded to your *Supplier Materials Database*, these files are no longer needed and can only serve to take up space and confuse matters as you go to work on that next tab of materials in the template.

PFS-SA Materials DB.docx

Understanding SKU Codes

Before we dive into the particulars of a tab-by-tab, column-by-column review of the *Materials DB Template*, we must first mention a few words about *Stock Keeping Unit* codes. Better known as *SKUs*, these are the unique codes manufacturers and suppliers assign to their products so that those products can be quickly identified and retrieved both electronically (from computer systems), and physically (from the warehouse).

Different organizations implement different SKU-coding systems, depending on individual needs. Generally speaking however, SKUs are alpha-numeric codes composed of multiple segments, with each different segment representing a specific property of the product being described. The *Materials DB Template* includes three different types of SKU codes: *SmartBuild SKU*, *Vendor SKU*, and *Supplier SKU*. Following is a brief description of each of these SKU codes, and where they appear in the *Materials DB Template*.

SMARTBUILD SKU

In order to generate highly detailed and accurate *Material Lists*, SmartBuild uses its own special SKU code. Listed in the *Materials DB Template* as "`Sku`", this required column of data includes specific segments of code that allow SmartBuild to differentiate among otherwise identical materials that are offered in a variety and `Colors` and/or precut `Lengths`. (More on this later.)

VENDOR SKU

The template's `VendorSku` column is used to list the SKU code your organization uses to identify each unique piece of material in its inventory. The `VendorSku` column is optional wherever it appears in the template, however, most *Suppliers* find it extremely helpful to map their SmartBuild *Materials List Outputs* right back to their parts in the warehouse. Therefore, as you are gathering data in-house for the *Materials DB Template*, it is a good idea to include the SKU information your organization uses for each material. Adding `VendorSku` information will also make it easier to populate the SmartBuild `Sku` columns in the template. (More on this below.)

> ***What if I don't have an existing VendorSku?*** A company that earns its bread and butter supplying materials to other companies is bound to use some form of control number for accounting, invoicing and/or inventory purposes. If you think your company does not use some kind of SKU code, think again. (Or maybe just stop thinking of it as a SKU code, and ask the boss what kind of code your company uses to manage its materials inventory. No matter what your company calls it, we will call this data your `VendorSku` in SmartBuild.)

SUPPLIER SKU

If your organization purchases some of its materials from a third party (i.e. outside supplier) the template's `SupplierSku` column can be used to record the SKU code used by that supplier in reference to its own materials. This information can increase the speed and accuracy with which needed materials can be ordered from an outside supplier.

Populating the SmartBuild Sku Column

As a new Systems Administrator using the *SmartBuild Materials DB Template*, you should know that the `SmartBuild Sku` column (`Sku` for short) is important for several reasons:

- The SmartBuild `Sku` includes special segments of code that <u>MUST</u> be included for <u>ALL</u> materials that come in multiple `Colors` and/or precut `Lengths`

- The SmartBuild `Sku` column appears on <u>19</u> out of the <u>21</u> tabs in the *Materials DB Template* (more than any other column in the template)

- SmartBuild `Sku` data does not exist until you create it (although you will be able to make short work of the task with a little copy and paste work)

GOOD NEWS / BAD NEWS

As stated above, the SmartBuild `Sku` column "includes specific segments of code that allow SmartBuild to differentiate among otherwise identical materials that are offered in a variety and `Colors` and/or precut `Lengths`." The BAD news is you will be responsible for creating your SmartBuild `Sku` codes. That said, there is GOOD news on several fronts:

1. <u>Two</u> of the <u>21</u> tabs in the template (`Colors` and `Systems`) DO NOT include a `Sku` column, so you can go ahead and cross these two off your list.

2. <u>Sixteen</u> of the <u>19</u> remaining tabs in the template represent materials (`Connectors`, `Hardware`, etc.) and material-related services (`Labor` and `Freight`) that DO NOT include – and/or are not managed for – `Colors` or precut `Lengths`. For these tabs, you can simply copy your existing `VendorSku` data into the SmartBuild `Sku` column. (This may seem redundant, however, bear in mind that the `VendorSku` data is there for your organization's reference and convenience, whereas the SmartBuild `Sku` is needed by the application itself to generate all of its outputs.)

3. That leaves just <u>three</u> tabs (`Sheathing`, `Trim` and `Fasteners`) on which you will need to create a SmartBuild `Sku` that, by definition, includes specific code segments for `Color` **{CC}** and precut `Length` **{LF}**. Your `VendorSku` will come in handy here too, because you can use it as the foundation for creating your new SmartBuild `Sku`s.

STARTING WITH YOUR VENDOR SKU

As mentioned above, what makes the SmartBuild `Sku` <u>unique</u> is its use of computer-code placeholders for a material's `Color` and precut-part `Length` **{LF}**. Assuming you have a viable `VendorSku` available, the only thing you need to do in order to convert it for use as a SmartBuild `Sku` is to add the placeholders for `Color` **{CC}** and precut `Length` **{LF}** as outlined below.

> **NOTE** – The instructions below provide examples of what different `VendorSkus` <u>might</u> look like. These are good examples in that they are clear, concise, and convey a great deal of information with a minimal number of characters. That said however, SmartBuild <u>does</u> <u>not</u> <u>care</u> what your `VendorSku` looks like, or how it is constructed. If you want to assign a material a `VendorSku` of "Bob-Trim-12" because Bob out there in the warehouse handles all of the 12' `Trim` parts, that's on you. SmartBuild will work with whatever code you put in a `VendorSku` column. The only restriction on `VendorSku` is a prohibition on the use of the special characters: < > &. If any of these three characters are used as part of your existing `VendorSku` system, you must replace them with a different character before your template files are uploaded into SmartBuild.

For materials that come in multiple _COLORS_

For the purpose of this example, we will use the `VendorSku` **SH16R-24-GR**, where:

- **SH16R** = Sheathing, 16' Width, Ribbed
- **24** = 24 Gauge
- **GR** = Gray Color

Using the example `VendorSku` above for a given piece of `Sheathing` material (**SH16R-24-GR**), since this `Sheathing` does not come in precut `Lengths`, we will not need the **{LF}** placeholder. The only thing we need to change is the `Color` code information, so that:

<p align="center">

`VendorSku`: **SH16R-24-GR** _becomes..._ [SmartBuild] `Sku`: **SH16R-24-{CC}**

</p>

As you can see in this example, the original `VendorSku` code used for `Color` **GR** has been deleted and replaced by SmartBuild's <u>required</u> placeholder for <u>ALL</u> `Colors` – **{CC}**. When the **{CC}** placeholder is added to your `Sku` codes, SmartBuild will create a unique entry in your _Pricing Tables_ for that material – _in every available color_. It will then use this information to generate all of your `Outputs`, including all quotes and _Materials Takeoffs_.

> **TIP** – It does not matter where the **{CC}** placeholder appears within the SmartBuild `Sku` codes you create. Beginning, end, or somewhere in the middle – all will work equally well. That said, the _Best Practices_ outlined on pages 15-16 would place this `Color` data somewhere near the end of a well-structured `Sku` code.

For materials that come in multiple precut _LENGTHS_

To convert an existing `VendorSku` for materials that come in multiple precut `Lengths` to a SmartBuild `Sku`, you must replace any `Length` data in the original `VendorSku` with SmartBuild's placeholder **{LF}** for `Linear Feet`. For example, let's say you have an existing `VendorSku` of **HVT-26-10**, where:

- **HVT** = Horizontal Valley Trim
- **26** = 26 Gauge
- **10** = 10' Precut Length

To convert this `VendorSku` to a SmartBuild `Sku`, we will replace the existing precut `Length` value to SmartBuild's placeholder for this information **{LF}**, as follows:

VendorSku: **HVT-26-10** *becomes…*[SmartBuild] `Sku`: **HVT-26-{LF}**

When the **{LF}** placeholder is added to this `Sku` as shown, SmartBuild will create a unique entry in your *Pricing Tables* for that material – in every available `Color` AND every available `Length`.

> **TIP** – It does not matter where the **{LF}** placeholder appears within the SmartBuild `Sku` codes you create. Beginning, end, or somewhere in the middle –all will work equally well. That said, the *Best Practices* outlined on below would place this data somewhere near the end of a well-structured `Sku` code.

For materials that come in multiple COLORS *AND* *LENGTHS*

To convert a `VendorSku` for materials that come in both multiple `Colors` AND precut `Lengths` you must use both of the SmartBuild placeholders: **{CC}** AND **{LF}**. Any specific designation of `Length` in your original `VendorSku` must be deleted and replaced with SmartBuild's placeholder code **{LF}** for `Linear Feet`. Any reference to `Color` must be deleted and replaced by the placeholder **{CC}**. For example, let's say you have an existing `VendorSku` of **EaveEdge-BL-10**, where:

- **EaveEdge** = Trim Type
- **BL** = Color (Black)
- **10** = Precut Length (10')

To convert this `VendorSku` to a SmartBuild `Sku`, we will replace both the existing `Color` and precut `Length` values to SmartBuild's placeholders for this information: **{CC}** and **{LF}** as follows:

VendorSku: **EaveEdge-BL-10** *becomes…*[SmartBuild] `Sku`: **EaveEdge{CC}{LF}**

When the **{CC}** and **{LF}** placeholders are added to this `Sku` as shown, SmartBuild will create a unique entry in your *Pricing Tables* for that material – in every available `Color` AND every available `Length`.

> **TIP** – It does not matter where the **{CC}** and **{LF}** placeholders appear within the SmartBuild `Sku` codes you create. Beginning, end, or somewhere in the middle – all will work equally well. That said, the *Best Practices* outlined below would place this data somewhere near the end of a well-structured `Sku` code..

BEST PRACTICES FOR CREATING SKUS FROM SCRATCH

We have yet to encounter the situation, however, it is theoretically possible that the control codes (SKUs) your organization uses internally to manage materials in its accounting and inventory control systems could prove entirely unworkable for SmartBuild's purposes (e.g. poorly organized or structured, problematic in your existing systems, and so on). If, for any reason, you find the need to create your SmartBuild `Sku` and/or `VendorSku` codes from scratch, you would be well advised to adhere to the following best practices:

1. Make your SKUs easy to understand. Consider including information that will identify the type, size, dimensions, color, etc. of the material being described.

2. Arrange the segments of your SKU code in order of importance from a "search and retrieval" perspective. (e.g. `Category`, `Gauge`, `Size`, `Color`, etc.)

3. Keep SKUs as short as is practicable. DO NOT include irrelevant or tangential information in your SKU codes. If your SKU codes become overly cluttered and difficult to comprehend, they will become unusable.

4. DO NOT use spaces, accent marks or symbols (!@#$%^&*) as part of your SKU codes, as these may interfere with the proper functioning of SmartBuild.

5. DO NOT use letters that look like numbers, as they will be hard for users to identify quickly.

6. Use a single character like a dash, period or underscore, to separate the various segments of your SKU code. This will make it easier for users to identify the specific segments of code they may be looking for.

7. DO NOT use more than five characters in a row per segment in your SKU code. Human beings have a hard time reading and remembering more than five characters at a time (+/-2).

8. Only use alphanumeric characters in your SKU codes and start SKUs with letters. (This will make sorting within spreadsheets more user friendly.)

With the project requirements and SKU codes now defined, next we will turn to a closer examination of each tab in the *Materials Setup Template*, and the requirements of each.

Framing Tab

The 14 columns in the `Framing` tab (`Figure 3` below) are used to record detailed information about each type of `Framing` material you wish to make available in SmartBuild. The `Framing` tab is one of only four tabs that contain columns of data that are REQUIRED in order for SmartBuild to function properly. (The other **REQUIRED** tabs are `Colors`, `Sheathing` and `Trim`.) Although there are 11 columns listed in the `Framing` tab, only three (`Description`, `Width` and `Depth`) are actually **REQUIRED** to successfully complete the data `Upload` process. Please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (YOU must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data into the REQUIRED columns will result in errors during the `Upload` process. SmartBuild cannot function properly until your *Materials Database* has been populated with this required data.

Figure 3: Of the 14 columns in the `Framing` tab, 3 are REQUIRED, 7 are OPTIONAL W/ DEFAULTS, and 4 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Framing` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 3`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Framing` material in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create your SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Framing` material to be made available in your inventory. It is NOT necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described..

C. **Width** – [REQUIRED] Using decimal inches, enter the measured `Width` of each different type of `Framing` material available in your materials inventory.

D. **Depth** – [REQUIRED] This column is used to record the thickness of each given `Framing` material in decimal inches.

E. **Usages** – [OPTIONAL] This column is used to identify where a given type of `Framing` material is to be applied on a model. For the time being, we suggest that you leave this field blank.

F. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Framing` materials acquired from an outside (third-party) source. Leave this field blank for all `Framing` materials manufactured in-house.

G. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Framing` material they provide to your organization.

H. **PartLength** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Length` of `Framing` materials that are offered in precut measurements. If a given `Framing` material is offered in six different `Lengths`, you will need to add six rows to the `Framing` tab; one for each different precut `Length`. If you do not enter a value for a given line-item, SmartBuild will enter a default value of ten feet (10') when your `Framing` data is uploaded into the *Supplier Materials Database*. Please enter whole numbers only.

I. **VendorSku** – [OPTIONAL] The `VendorSku` column is used to list the SKU code your organization uses to identify each unique type of `Framing` material in its inventory. The `VendorSku` column is optional, however, most *Suppliers* find it extremely helpful to map their SmartBuild *Materials List* outputs right back to the parts in the warehouse.

J. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given `Framing` material. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

K. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Framing` material in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Framing` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

L. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a `Framing` material is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

M. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each `Framing` material in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

N. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given line-item of `Framing` material, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.

Systems Tab

The optional `Systems` tab in the *Materials Setup Template* is used to identify collections of `Sheathing` and `Trim` that are sold and used together as a single unit. Defining `Systems` in your *Materials Database* will make it easier for your users by limiting the material choices they must search through when designing a structure.

The `Systems` you define can be based on a single material property, such as metal profile (`Ribbed`, `Smooth`, etc.), material quality (`Standard`, `Prime`, `Deluxe`, etc.) or you can define `Systems` using a combination of multiple properties (e.g. `Profile` plus `Texture`). In short, you can define `Systems` based on any conceptual structure that works for your company.
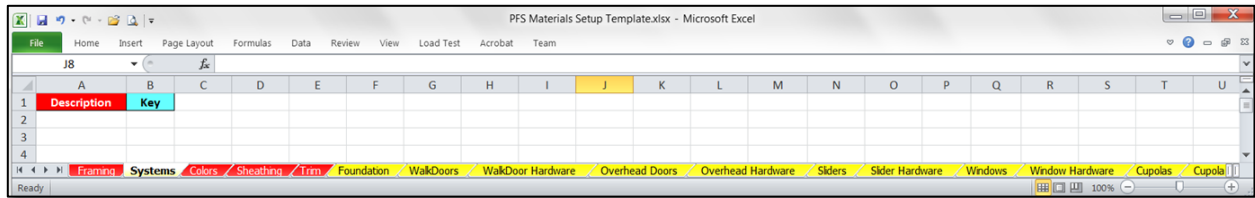
Figure 4: The `Systems` tab has just 2 columns; 1 is REQUIRED and 1 is OPTIONAL W/ DEFAULTS.

A. **Description** – [REQUIRED] Use this column to enter a brief, informative description of each different `System` to be created in SmartBuild. Be sure that your `Descriptions` are sufficient to distinguish each unique `System` from the rest.

B. **Key** – [OPTIONAL W/ DEFAULTS] Enter an alpha or alphanumeric code that you will use as an abbreviated identifier to search for or refer to this `System`. The form and format of this `Key` is entirely up to you. If no value is provided, SmartBuild will enter a default value of S*x*, where *x* is a sequential number.

Colors Tab

The 5 columns in the `Colors` tab (`Figure 5` below) are used to record information about every `Color` in which your `Sheathing`, `Trim` and `Fastener` materials are made available. The `Colors` tab is one of only four tabs that contain columns of data that are REQUIRED in order for SmartBuild to function properly. (The other REQUIRED tabs are `Framing`, `Sheathing` and `Trim`.) Although there are 5 columns listed in the `Framing` tab, only two (HEX Code and Color Code) are actually REQUIRED to successfully complete the data `Upload` process. Please note that the columns in this tab are COLOR CODED as follows:

Gray = LEAVE BLANK (SmartBuild will supply this data automatically.)

Red = REQUIRED (YOU must provide a value in this column for each line item.)

Blue = OPTIONAL W/ DEFAULTS (If no values are entered, SmartBuild will provide default values.)

Yellow = OPTIONAL (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data into the REQUIRED columns will result in errors during the `Upload` process. SmartBuild cannot function properly until your *Materials Database* has been populated with this REQUIRED data.
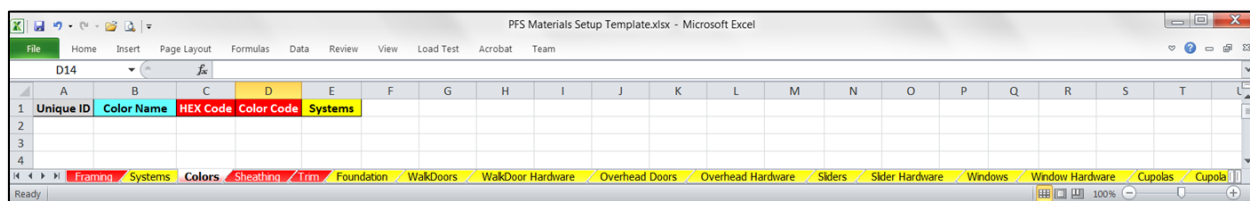
Figure 5: Of the 5 columns in the `Colors` tab, 2 are REQUIRED, 1 is OPTIONAL W/ DEFAULTS, 1 is OPTIONAL and 1 is to be left blank.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Colors` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 5`:

A. **Unique ID** – Leave this column blank in your template. SmartBuild will automatically assign a *Unique ID* number to each entry in your *Colors Table*.

B. **Color Name** – [OPTIONAL W/ DEFAULTS] The `Color Name` represents the term human beings will use to refer to a given color (as opposed to `Hex Code` and `Color Code`, which are the options preferred by computers). If no data is provided, SmartBuild will duplicate the value listed in the `Color Code` column.

C. **HEX Code** – [REQUIRED] This is the 6-character (hexadecimal) code that computer systems use to define a given color. If you do not already have the hexadecimal codes for the colors used in your materials inventory, there are a number of free tools on the internet you can use to identify the appropriate codes. We like the one at https://htmlcolorcodes.com/. All `Hex Codes` entered into the `Hex Code` column of the *Materials Setup Template* must be preceded by the hashtag symbol (#). DO NOT leave a space between the hashtag symbol and the `Hex Code` itself (e.g. #AF1192).

> **NOTE** – A second option is to leave the `Hex Codes` column blank when you upload `Colors` from the *Materials DB Template* into SmartBuild. You can then add `Colors` later, using the SmartBuild's own color-selection tool, as outlined in the document entitled *Maintaining the Materials Database*.

D. <mark>Color Code</mark> – [REQUIRED] The `Color Code` is a short, unique identifier assigned to every color that is used in your materials inventory. It is often a worthwhile practice to include `Color Codes` as part of your `SmartBuild` SKU numbers for `Sheathing`, `Trim` and `Fasteners`, since these materials may come in a variety of colors. If your current `VendorSkus` have a `Color Code` embedded in them, then use that same code. (See *VendorSkus* on page 14 for further information.)

E. <mark>Systems</mark> – [OPTIONAL] In SmartBuild, collections of `Sheathing` and `Trim` that are frequently used together can, at your discretion, be organized as `Product Systems` (`Systems` for short). Organizing `Sheathing` and `Trim` together as `Systems` will make it easier for users to locate needed materials within SmartBuild as quickly and efficiently as possible. It will also make it easier for you, as the SmartBuild Systems Administrator, to maintain the *Materials Database*.

If you elect to include the definition of `Systems` as part of your initial *Materials Database* implementation, we suggest that you complete the `Systems` tab in the *Materials DB Template* first. You can then return to the `Colors` tab in the template, and provide a value for the `Systems` column. The other option is to leave this column blank for the time being. If you decide to define `Systems` at a later date, you can always associate your `Colors` with `Systems` directly from within the SmartBuild interface. (See *Maintaining the Materials Database*.)

> **NOTE** – If a `Color` is associated with multiple `Systems`, separate each `System` by a semicolon WITHOUT the addition of any extra spaces.

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Sheathing Tab

The 20 columns in the `Sheathing` tab (`Figure 6` below) are used to record detailed information about each type of `Sheathing` material you wish to make available in SmartBuild. The `Sheathing` tab is one of only four tabs that contain columns of data that are REQUIRED in order for SmartBuild to function properly. (The other REQUIRED tabs are `Framing`, `Colors` and `Trim`.) Although there are 20 columns listed in the `Sheathing` tab, only two (`Description` and `CoverageWidth`) are actually REQUIRED to successfully complete the data `Upload` process. Please note that the columns in this tab are COLOR CODED as follows:

Red = REQUIRED (YOU must provide a value in this column for each line item.)

Blue = OPTIONAL W/ DEFAULTS (If no values are entered, SmartBuild will provide default values.)

Yellow = OPTIONAL (No values are required and no default values will be provided.)

> ALERT! Failure to enter data into the REQUIRED columns will result in errors during the `Upload` process. SmartBuild cannot function properly until your *Materials Database* has been populated with this required data.

Figure 6: Of the 20 columns in the `Sheathing` tab, 2 are REQUIRED, 8 are OPTIONAL W/ DEFAULTS, and 10 are OPTIONAL.

Note that `Sheathing` material can be sold by the piece (precut-part length), by the foot (random lengths), and in multiple colors. The following paragraphs provide details about the purpose and requirements of each of the columns in the `Sheathing` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 6`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Sheathing` material in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Sheathing` material to be made available in your inventory. It is NOT necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **CoverageWidth** – [REQUIRED] Enter the `Width`, in decimal inches, of the surface area covered by the given `Sheathing` material.

D. **FullWidth** – [OPTIONAL W/ DEFAULTS] Entered in decimal inches, this column is used to record the `Width` of `Sheathing`, along with the addition of any material used for overlaps. (That is, `CoverageWidth` plus overlap.) If no value is provided, SmartBuild will enter a value of the `CoverageWidth` plus ½".

E. **Thickness** – [OPTIONAL] Enter the `Thickness` of the given material in decimal inches. The minimum value is 0.25.

F. **Systems** – [OPTIONAL] If you elect to implement the option to define and include collections of `Sheathing` and `Trim` that are used together (as a "System") you will enter the appropriate `Systems` code for each line item in this column. If an item is included in more than one `System`, separate each `System` by a semicolon. For more details on `Systems`, please see page 19.

G. **Usages** – [OPTIONAL] This column is used to identify where a given type of `Sheathing` material is to be applied on a model. For the time being, we suggest that you leave this field blank.

H. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Sheathing` materials acquired from an outside (third-party) source. Leave this field blank for all `Sheathing` materials manufactured in-house.

I. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Sheathing` material they provide to your organization.

J. **Orientation** – [OPTIONAL] This column is used to identify whether a given material is to run vertically or horizontally. For the time being, we suggest that you leave this field blank.

K. **Texture** – [OPTIONAL W/ DEFAULTS] Use this column to enter a value for the `Texture` (feel, appearance, or consistency of the surface) associated with your `Sheathing`. There are three potential values you can use here: `Standingseam`, `Corrugated` or `Agpanel`. Leave this column blank for any material that does not have an applied texture (i.e. that is "smooth"). [agpanel default value.]

L. **Bump Map** – [OPTIONAL] This column is used to define texture/spacing requirements that do not currently apply to SmartBuild. Please leave this field blank. The pattern that shows on matearial foe sheathing.

M. **ColorCode** – [OPTIONAL] This column is used to record the `Color` of a given `Sheathing` material, using the `Color Code` values you created on the `Colors` tab of the *Materials DB Template*. If a given `Sheathing` material is offered in six different `Colors`, you will need to add six rows to the `Sheathing` tab; one for each different `Color` in which the `Sheathing` is made available.

N. **PartLength** – [OPTIONAL] This column is used to record the `Length` of `Sheathing` materials that are offered in a variety of precut measurements. If a given `Sheathing` material is offered in six different `Lengths`, you will need to add six rows to the `Sheathing` tab; one for each different precut `Length` in which the `Sheathing` is made available. If a `Sheathing` material is only provided in random `Lengths`, leave this field blank.

O. **VendorSku** – [OPTIONAL] The `VendorSku` column is used to list the SKU code <u>your</u> organization uses to identify each unique type of `Sheathing` material in its inventory. The `VendorSku` column is <u>optional</u>, however, most *Suppliers* find it extremely helpful to map their SmartBuild *Materials List* outputs right back to the parts in the warehouse.

P. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given `Sheathing` material. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

Q. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Sheathing` material in dollars and cents. If you do not provide a value for a given line-

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item, SmartBuild will enter a default value of zero (0) when your `Sheathing` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

R. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a `Sheathing` material is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

S. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each `Sheathing` material in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

T. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given line-item of `Sheathing`, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information underlined unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.

Trim Tab
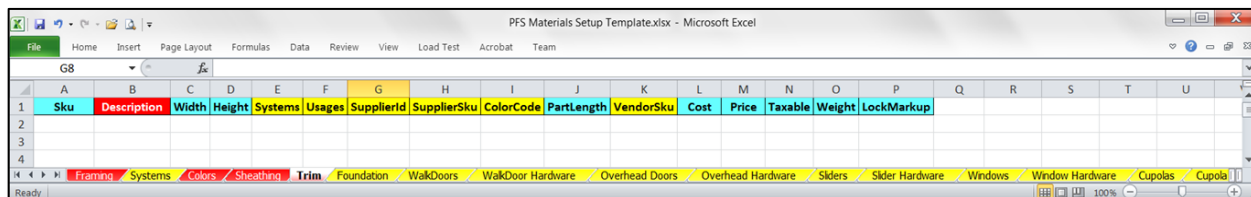
The 16 columns in the `Trim` tab (`Figure 7` below) are used to record detailed information about each type of `Trim` material you wish to make available in SmartBuild. <u>The `Trim` tab is one of only four tabs that contain columns of data that are REQUIRED in order for SmartBuild to function properly.</u> (The other REQUIRED tabs are `Framing`, `Colors` and `Sheathing`.) Although there are 16 columns listed in the `Trim` tab, only <u>one</u>, `Description`, is actually REQUIRED to successfully complete the data `Upload` process. Please note that the columns in this tab are COLOR CODED as follows:

> **Red** = REQUIRED (<u>YOU</u> must provide a value in this column for each line item.)
>
> **Blue** = OPTIONAL W/ DEFAULTS (If no values are entered, SmartBuild will provide default values.)
>
> **Yellow** = OPTIONAL (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data into the REQUIRED columns will result in errors during the `Upload` process. SmartBuild cannot function properly until your *Materials Database* has been populated with this required data.

Figure 7: Of the 16 columns in the `Trim` tab, 1 is REQUIRED, 9 are OPTIONAL W/ DEFAULTS, and 6 are OPTIONAL.

Note that `Trim` material can be sold by the piece (precut-part length), by the foot (random lengths), and in multiple colors. The following paragraphs provide details about the purpose and requirements of each of the columns in the `Trim` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 7`.

A. **Sku** –[OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Trim` material in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Trim` material to be made available in your inventory. It is <u>NOT</u> necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **Width** – [OPTIONAL W/ DEFAULTS] Using decimal inches, enter the measured `Width` of each different type of `Trim` material available in your materials inventory. If you do not provide a `Width` value for a given line-item, SmartBuild will enter a default value of one inch (1") when your `Trim` data is uploaded into the *Supplier Materials Database*.

D. **Height** – [OPTIONAL W/ DEFAULTS] Using decimal inches, enter the measured `Height` of each different type of `Trim` available in your materials inventory. If you do not provide a `Height` value for a given line-item, SmartBuild will enter a default value of zero inches (0") when your `Trim` data is uploaded into the *Supplier Materials Database*.

E. **Systems** – [OPTIONAL] If you elect to implement the option to define and include collections of `Sheathing` and `Trim` that are used together (as a "System") you will enter the appropriate `Systems` code for each line item in this column. If an item is included in more than one `System`, separate each `System` listed by a semicolon. For more details on `Systems`, please see page 19.

F. **Usages** – [OPTIONAL] This column is used to identify where a given type of `Trim` material is to be applied on a model. There are <u>13</u> potential values you can list in this column:
`RidgeCapMaterial, HipCapMaterial, ValleyMaterial, GambrelTransitionMaterial, WesternTransitionMaterial, EaveEdgeMaterial, GableEdgeMaterial, AngledEdgeMaterial, HighEaveEdgeMaterial, RoofWallTrimMaterial, GableAngledRoofWallMaterial, ShedRoofWallTrimMaterial, ShedAngledRoofWallMaterial.`

G. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Trim` materials acquired from an outside (third-party) source. Leave this field blank for all `Trim` materials manufactured in-house.

H. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Trim` material they provide to your organization.

I. **ColorCode** – [OPTIONAL] This column is used to record the `Color` of a given `Trim` material, using the `Color Code` values you created on the `Colors` tab of the template. If a given `Trim` material is offered in six different `Colors`, you will need to add six rows to the `Trim` tab; one for each different `Color` in which the `Trim` is made available.

J. **PartLength** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Length` of `Trim` materials that are offered in precut measurements. If a given `Trim` material is offered in six different `Lengths`, you will need to add six rows to the `Trim` tab; one for each different precut `Length`. If you do not enter a value for a given line-item, SmartBuild will enter a default value of ten feet (10') when your `Trim` data is uploaded into the *Supplier Materials Database*. Please enter <u>whole numbers</u> only.

K. **VendorSku** – [OPTIONAL] The `VendorSku` column is used to list the SKU code <u>your</u> organization uses to identify each unique type of `Trim` material in its inventory. The `VendorSku` column is <u>optional</u>, however, most *Suppliers* find it extremely helpful to map their SmartBuild *Materials List* outputs right back to the parts in the warehouse.

L. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given `Trim` material. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

M. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Trim` material in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Trim` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

N. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a `Trim` material is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.
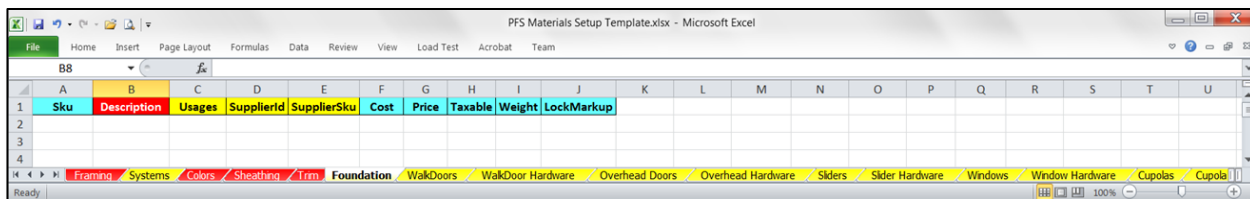
O. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each `Trim` material in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

P. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given line-item of `Trim`, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.

Foundation Tab

The 10 columns in the `Foundation` tab (`Figure 8` below) are used to record detailed information about each type of `Foundation` material you wish to make available within SmartBuild. The <u>entire</u> `Foundation` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `Foundation` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Foundation` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

ALERT! Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 8: Of the 10 columns in the `Foundation` tab, 1 is REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 3 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Foundation` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 8`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to uniquely identify every piece of material in the *Materials Database*. Every type of foundation material (i.e. every row in your worksheet) must have a unique `SmartBuild Sku`. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create your `SmartBuild Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Foundation` material to be made available in your inventory. It is <u>NOT</u> necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **Usages** – [OPTIONAL] This column is used to identify where a given type of `Foundation` material is to be applied on a model. For the time being, we suggest that you leave this field blank.

D. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Foundation` materials acquired from an outside (third-party) source. Leave this field blank for all `Foundation` materials manufactured in-house.

E. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Foundation` material they provide to your organization.

F. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given `Foundation` material. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

G. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Foundation` material in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Foundation` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

H. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a `Foundation` material is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

I. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each `Foundation` material in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

J. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Foundation` line-item, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information <u>unlocked</u> (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
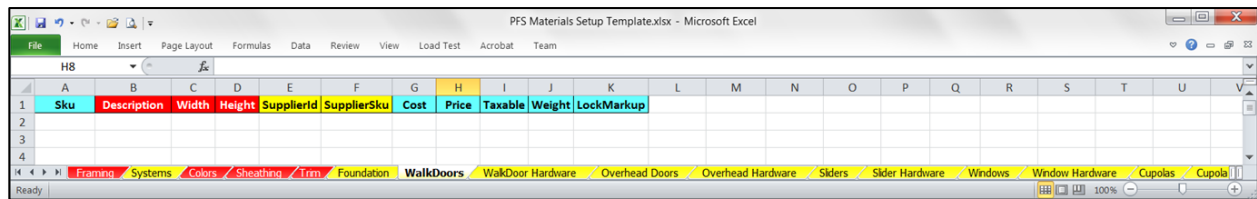
WalkDoors Tab

The 11 columns in the `WalkDoors` tab (`Figure 9` below) are used to record detailed information about each type of `WalkDoor` you wish to make available within SmartBuild. The <u>entire</u> `WalkDoor` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `WalkDoor` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `WalkDoor` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 9: Of the 11 columns in the `WalkDoor` tab, 3 are REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `WalkDoors` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 9`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `WalkDoor` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `WalkDoor` to be made available in your inventory. It is <u>NOT</u> necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **Width** – [REQUIRED] Using decimal inches, enter the measured `Width` of each different type of `WalkDoor` available in your materials inventory.

D. **Height** – [REQUIRED] Using decimal inches, enter the measured `Height` of each different type of `WalkDoor` available in your materials inventory

E. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `WalkDoors` acquired from an outside (third-party) source. Leave this field blank for all `WalkDoors` manufactured in-house.

F. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `WalkDoors` they provide to your organization.

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G. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given `WalkDoor` type. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

H. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `WalkDoor` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `WalkDoor` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

I. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a `WalkDoor` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

J. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each `WalkDoor` in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

K. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `WalkDoor` line-item, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information underlined unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.

WalkDoor Hardware

The 9 columns in the `WalkDoor Hardware` tab (`Figure 10` below) are used to record detailed information about each type hardware associated with `WalkDoors` that you wish to make available within SmartBuild. The <u>entire</u> `WalkDoor Hardware` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `WalkDoor Hardware` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `WalkDoor Hardware` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 10: Of the 9 columns in the `WalkDoor Hardware` tab, 1 is REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `WalkDoor Hardware` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 10`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `WalkDoor Hardware` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** –[REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `WalkDoor Hardware` to be made available in your inventory. It is <u>NOT</u> necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `WalkDoor Hardware` acquired from an outside (third-party) source. Leave this field blank for all `WalkDoor Hardware` manufactured in-house.

D. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `WalkDoor Hardware` they provide to your organization.

E. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `WalkDoor Hardware`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

F. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `WalkDoor Hardware` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `WalkDoor Hardware` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

G. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether the given `WalkDoor Hardware` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

H. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each `WalkDoor Hardware` material in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

I. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Window Hardware` line-item, <u>lock</u> the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information <u>unlocked</u> (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.

Overhead Doors Tab

The 11 columns in the `Overhead Doors` tab (`Figure 11` below) are used to record detailed information about each type of `Overhead Door` you wish to make available within SmartBuild. The <u>entire</u> `Overhead Door` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `Overhead Door` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Overhead Door` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 11: Of the 11 columns in the `Overhead Door` tab, 3 are REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Overhead Doors` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 11`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Overhead Door` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Overhead Door` to be made available in your inventory. It is <u>NOT</u> necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **Width** – [REQUIRED] Using decimal inches, enter the measured `Width` of each different type of `Overhead Door` available in your materials inventory.

D. **Height** – [REQUIRED] Using decimal inches, enter the measured `Height` of each different type of `Overhead Door` available in your materials inventory.

E. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Overhead Doors` acquired from an outside (third-party) source. Leave this field blank for all `Overhead Doors` manufactured in-house.

F. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Overhead Doors` they provide to your organization.

G. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Overhead Door`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

H. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Overhead Door` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Overhead Door` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

I. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a given `Overhead Door` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

J. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each `Overhead Door` type in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

K. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Overhead Door` line-item, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
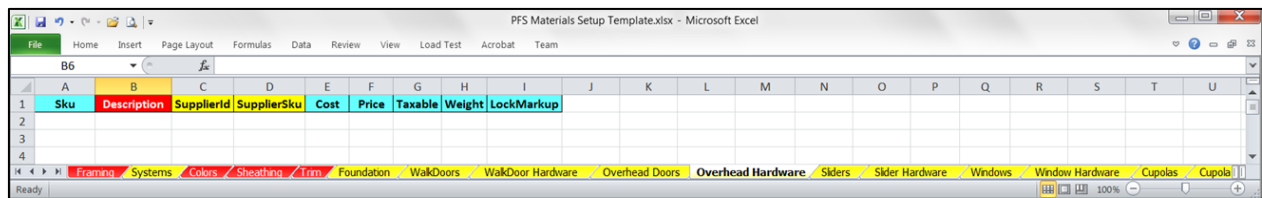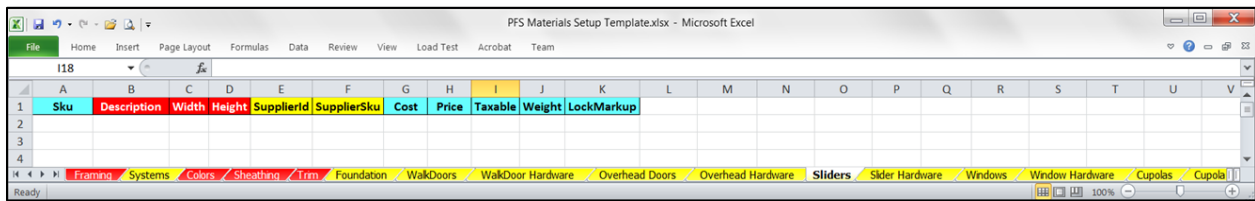
Overhead Hardware Tab

The 9 columns in the `WalkDoor Hardware` tab (`Figure 12` below) are used to record detailed information about each type hardware associated with `Overhead Doors` that you wish to make available within SmartBuild. The <u>entire</u> `Overhead Hardware` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `Overhead Hardware` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Overhead Hardware` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 12: Of the 9 columns in the `Overhead Hardware` tab, 1 is REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Overhead Hardware` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 12`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Overhead Door Hardware` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Overhead Door Hardware` to be made available in your inventory. It is <u>NOT</u> necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Overhead Door Hardware` acquired from an outside (third-party) source. Leave this field blank for all `Overhead Door Hardware` manufactured in-house.

D. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Overhead Door Hardware` they provide to your organization.

E. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Overhead Door Hardware`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

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F. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Overhead Door Hardware` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Overhead Door Hardware` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

G. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether the given `Overhead Door Hardware` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

H. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each type of `Overhead Door Hardware` in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

I. **LockMarkup** –[OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Overhead Door Hardware` line-item, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.

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Sliders Tab

The 11 columns in the `Sliders` tab (`Figure 13` below) are used to record detailed information about each type of `Slider Door` you wish to make available within SmartBuild. The entire `Slider` tab is itself OPTIONAL. (That is, you DO NOT need to enter or upload any `Slider` data into your *Materials Database* in order for SmartBuild to function properly.) If you DO elect to enter and upload `Slider` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (YOU must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 13: Of the 11 columns in the `Sliders` tab, 3 are REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Sliders` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 13`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Slider Door` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Slider` to be made available in your inventory. It is NOT necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **Width** – [REQUIRED] Using decimal inches, enter the measured `Width` of each different type of `Slider` available in your materials inventory.

D. **Height** – [REQUIRED] Using decimal inches, enter the measured `Height` of each different type of `Slider` available in your materials inventory.

E. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Slider Doors` acquired from an outside (third-party) source. Leave this field blank for all `Sliders Doors` manufactured in-house.

F. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Slider Doors` they provide to your organization.

G. **Cost** – [OPTIONAL W/ DEFAULTS] E Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Slider Door`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

H. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Slider` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Slider` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

I. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a `Slider Door` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

J. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each `Slider` type in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

K. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Slider Door` line-item, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
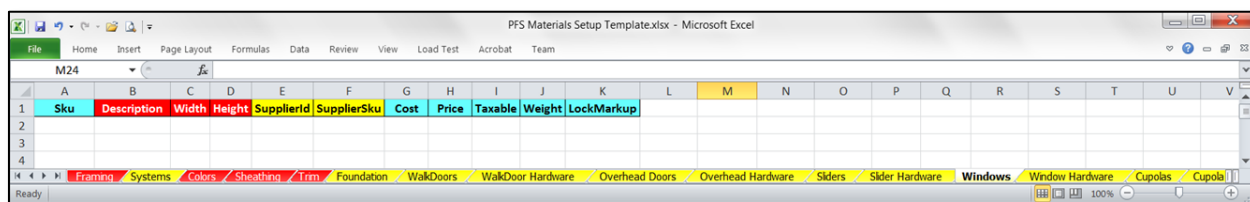
Slider Hardware

The 9 columns in the `Slider Hardware` tab (`Figure 14` below) are used to record detailed information about each type hardware associated with `Slider Doors` that you wish to make available within SmartBuild. The entire `Slider Hardware` tab is itself OPTIONAL. (That is, you DO NOT need to enter or upload any `Slider Hardware` data into your *Materials Database* in order for SmartBuild to function properly.) If you DO elect to enter and upload `Slider Hardware` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (YOU must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 14: Of the 9 columns in the `Slider Hardware` tab, 1 is REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Slider Hardware` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 14`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Slider Door Hardware` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Slider Hardware` to be made available in your inventory. It is NOT necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described..

C. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Slider Door Hardware` acquired from an outside (third-party) source. Leave this field blank for all `Slider Door Hardware` manufactured in-house.

D. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Overhead Door Hardware` they provide to your organization.

E. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Slider Door Hardware`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

F. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Slider Door Hardware` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Slider Door Hardware` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

G. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether the given `Slider Door Hardware` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

H. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each type of `Slider Door Hardware` in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

I. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Slider Hardware` line-item, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.

Windows

The 11 columns in the `Windows` tab (`Figure 15` below) are used to record detailed information about each type of `Window` you wish to make available within SmartBuild. The <u>entire</u> `Window` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `Window` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Window` data, please note that the columns in this tab are COLOR CODED as follows:

> **Red** = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

> **Blue** = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

> **Yellow** = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 15: Of the 11 columns in the `Windows` tab, 3 are REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Windows` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 15`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Window` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Window` to be made available in your inventory. It is <u>NOT</u> necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **Width** – [REQUIRED] Using decimal inches, enter the measured `Width` of each different type of `Window` available in your inventory.

D. **Height** – [REQUIRED] Using decimal inches, enter the measured `Height` of each different type of `Window` available in your inventory.

E. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Windows` acquired from an outside (third-party) source. Leave this field blank for all `Windows` manufactured in-house.

F. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Windows` they provide to your organization.

G. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Window`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

H. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Window` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Window` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

I. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a `Window` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

J. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each type of `Window` in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

K. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Windows` line-item, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
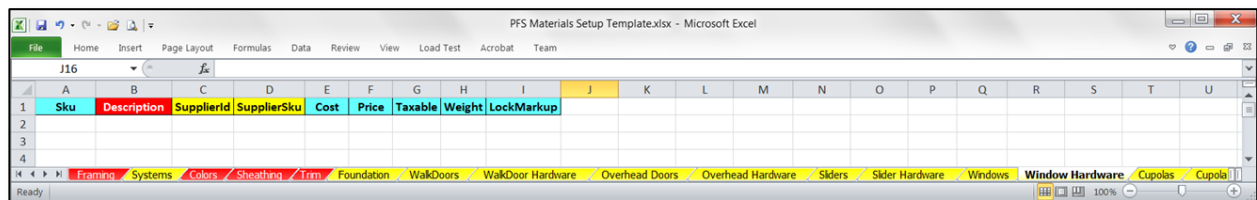
Window Hardware Tab

The 9 columns in the `Window Hardware` tab (`Figure 16` below) are used to record detailed information about each type hardware associated with `Windows` that you wish to make available within SmartBuild. The <u>entire</u> `Window Hardware` tab is itself OPTIONAL. (That is, you <u>DO NOT</u> need to enter or upload any `Window Hardware` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Window Hardware` data, please note that the columns in this tab are COLOR CODED as follows:

> `Red` = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)
>
> `Blue` = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)
>
> `Yellow` = **OPTIONAL** (No values are required and no default values will be provided.)

ALERT! Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 16: Of the 9 columns in the `Window Hardware` tab, 1 is REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Window Hardware` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 16`:

A. `Sku` – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Window Hardware` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. `Description` – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Window Hardware` to be made available in your inventory. It is <u>NOT</u> necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. `SupplierId` – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Window Hardware` acquired from an outside (third-party) source. Leave this field blank for all `Window Hardware` manufactured in-house.

D. `SupplierSku` – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Window Hardware` they provide to your organization.

E. `Cost` – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Window Hardware`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

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F. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Window Hardware` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Window Hardware` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

G. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether the given `Window Hardware` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

H. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each type of `Window Hardware` in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

I. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Window Hardware` line-item, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
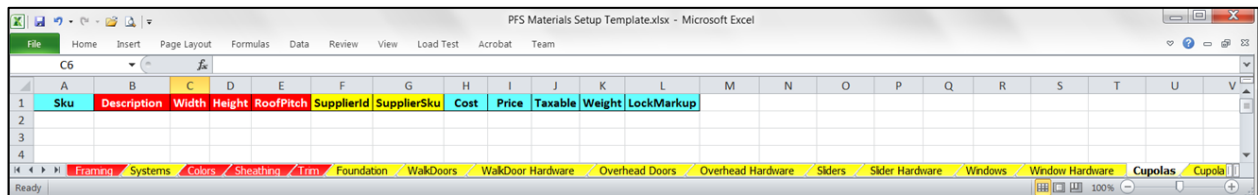
PFS-SA Materials DB.docx

Cupolas Tab

The 12 columns in the `Cupolas` tab (`Figure 17` below) are used to record detailed information about each `Cupola` you wish to make available within SmartBuild. The <u>entire</u> `Cupolas` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `Cupola` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Cupola` data, please note that the columns in this tab are COLOR CODED as follows:

> Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

> Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

> Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

ALERT! Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 17: Of the 12 columns in the `Cupolas` tab, 4 are REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Cupolas` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 17`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Cupola` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative `Description` of each different type of `Cupola` to be made available in your inventory. It is <u>NOT</u> necessary for the `Description` of each line item to be UNIQUE, however, the value entered should properly and sufficiently define the material being described.

C. **Width** – [REQUIRED] Using decimal inches, enter the measured `Width` of each different type of `Cupola` available in your inventory.

D. **Height** – [REQUIRED] Using decimal inches, enter the measured `Height` of each different type of `Cupola` available in your inventory.

E. **RoofPitch** – [REQUIRED] ROOF OF CUP N OVER 12 ON CUPOLA ITSELF

F. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Cupolas` acquired from an outside (third-party) source. Leave this field blank for all `Cupolas` manufactured in-house.

G. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Cupolas` they provide to your organization.

H. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Cupola`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

I. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Cupola` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Cupola` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

J. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a `Cupola` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

K. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each type of `Cupola` in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

L. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Cupola` line-item, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information underlined (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
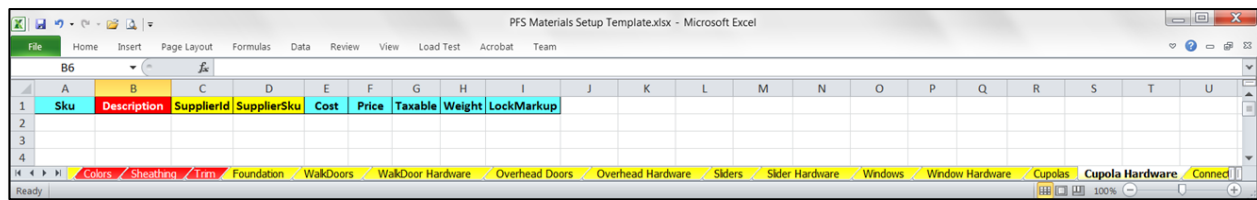
Cupola Hardware Tab

The 9 columns in the `Cupola Hardware` tab (`Figure 18` below) are used to record detailed information about each type hardware associated with `Cupolas` that you wish to make available within SmartBuild. The entire `Cupola Hardware` tab is itself OPTIONAL. (That is, you DO NOT need to enter or upload any `Cupola Hardware` data into your *Materials Database* in order for SmartBuild to function properly.) If you DO elect to enter and upload `Cupola Hardware` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (YOU must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 18: Of the 9 columns in the `Cupola Hardware` tab, 1 is REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Cupola Hardware` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 18`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Cupola Hardware` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative description of each different type of `Cupola Hardware` to be made available in your inventory. Be sure that your descriptions are sufficient to distinguish each unique `Hardware` type from the rest.

C. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Cupola Hardware` acquired from an outside (third-party) source. Leave this field blank for all `Cupola Hardware` manufactured in-house.

D. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Cupola Hardware` they provide to your organization.

E. **Cost** – [OPTIONAL W/ DEFAULTS] E Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Cupola Hardware`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

F. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Cupola Hardware` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Cupola Hardware` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

G. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether the given `Cupola Hardware` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

H. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each type of `Cupola Hardware` in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

I. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Cupola Hardware` line-item, <u>lock</u> the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information <u>unlocked</u> (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
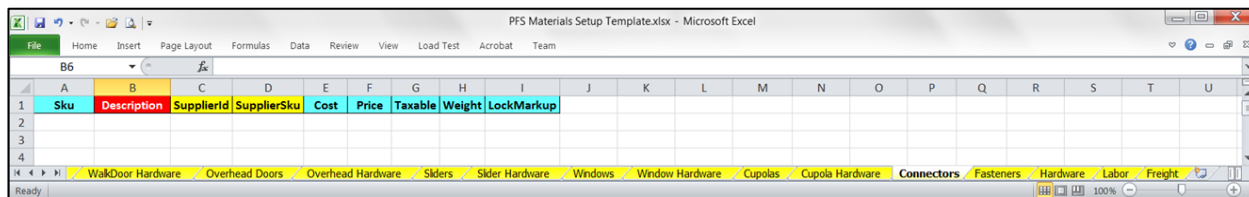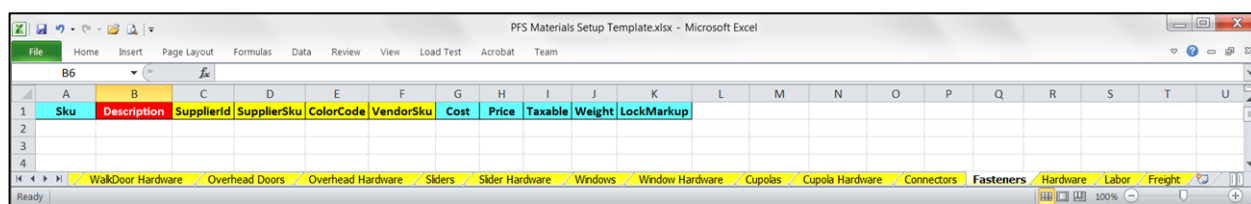
Connectors Tab

The 9 columns in the `Connectors` tab (`Figure 19` below) are used to record detailed information about each type of `Connector` you wish to make available within SmartBuild. The entire `Connectors` tab is itself **OPTIONAL**. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `Connector` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Connector` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 19: Of the 9 columns in the `Connectors` tab, 1 is REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Connectors` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 19`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Connector` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative description of each different type of `Connector` available in your inventory. Be sure that your descriptions are sufficient to distinguish each unique `Connector` type from the rest.

C. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Connectors` acquired from an outside (third-party) source. Leave this field blank for all `Connectors` manufactured in-house.

D. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Connectors` they provide to your organization.

E. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Connector`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

F. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Connectors` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Connector` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

G. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a given `Connector` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

H. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each type of `Connector` in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

I. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Connectors` line-item, <u>lock</u> the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information <u>unlocked</u> (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.

Fasteners Tab

The 11 columns in the `Fasteners` tab (`Figure 20` below) are used to record detailed information about each type of `Fastener` you wish to make available within SmartBuild. The entire `Fasteners` tab is itself OPTIONAL. (That is, you DO NOT need to enter or upload any `Fastener` data into your *Materials Database* in order for SmartBuild to function properly.) If you DO elect to enter and upload `Fastener` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (YOU must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 20: Of the 11 columns in the `Fasteners` tab, 1 is REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 4 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Fasteners` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 20`:

A. **Sku** –[OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Fastener` in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative description of each different type of `Fastener` available in your inventory. Be sure that your descriptions are sufficient to distinguish each unique `Fastener` from the rest.

C. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Fasteners` acquired from an outside (third-party) source. Leave this field blank for all `Fasteners` manufactured in-house.

D. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Fasteners` they provide to your organization.

E. **ColorCode** – [OPTIONAL] This column is used to record the `Color` of a given `Fastener`, using the `Color Code` values you created on the `Colors` tab of the template. If a given `Fastener` is available in six different `Colors`, you will need to add six rows to the `Fasteners` tab; one for each different `Color` in which the `Fastener` is made available.

F. **VendorSku** – [OPTIONAL] The `VendorSku` column is used to list the SKU code <u>your</u> organization uses to identify each unique type of `Fastener` in its inventory. The `VendorSku` column is <u>optional</u>, however, most *Suppliers* find it extremely helpful to map their SmartBuild *Materials List* outputs right back to the parts in the warehouse.

G. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Fastener`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

H. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Fasteners` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Fasteners` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

I. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a given `Fastener` is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

J. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each type of `Fastener` in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

K. **LockMarkup** –[OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given `Fasteners` line-item, <u>lock</u> the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information <u>unlocked</u> (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
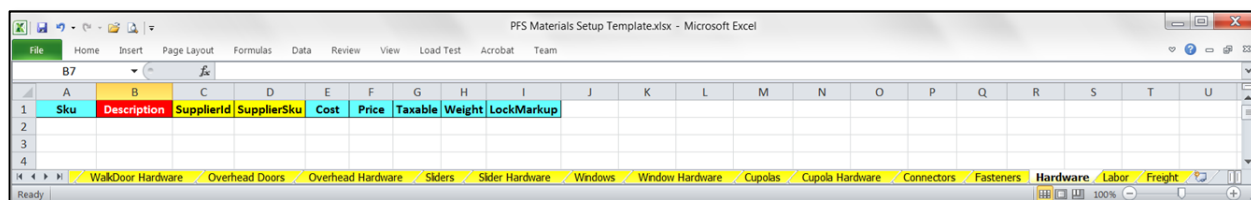
Hardware Tab

The 9 columns in the `Hardware` tab (`Figure 21` below) are used to record detailed information about each type of `Hardware` (not otherwise specified) that you wish to make available within SmartBuild. The entire `Hardware` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `Hardware` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Hardware` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 21: Of the 9 columns in the `Hardware` tab, 1 is REQUIRED, 6 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Hardware` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 21`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier for each type of `Hardware` (not otherwise specified) in your database. If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative description of each different type of `Hardware` available in your inventory. Be sure that your descriptions are sufficient to distinguish each unique type of `Hardware` from the rest.

C. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Hardware` (not otherwise specified) acquired from an outside (third-party) source. Leave this field blank for all `Hardware` manufactured in-house.

D. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Hardware` (not otherwise specified) they provide to your organization.

E. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay to produce or acquire a given type of `Hardware` (not otherwise specified). SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

F. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Hardware` in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Hardware` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

G. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a given line-item of `Hardware` (not otherwise specified) is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

H. **Weight** – [OPTIONAL W/ DEFAULTS] This column is used to record the `Weight` of each type of `Hardware` (not otherwise specified) in decimal pounds. `Weight` values are used to calculate the weight of an entire job/order. If you do not provide a value, SmartBuild will enter a default value of zero (0) pounds when your data file is uploaded to the *Supplier Materials Database*.

I. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given line-item of `Hardware`, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
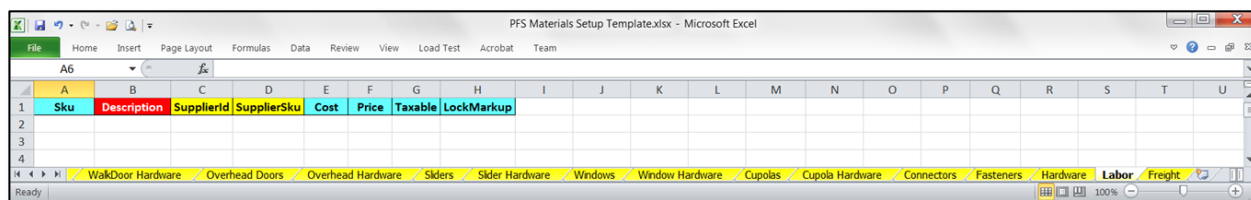
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Labor Tab

The 8 columns in the `Labor` tab (`Figure 22` below) are used to record detailed information the various types of `Labor` to be included in the calculation of job pricing. The <u>entire</u> `Labor` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `Labor` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Labor` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

> **ALERT!** Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 22: Of the 8 columns in the `Labor` tab, 1 is REQUIRED, 5 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Labor` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 22`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier each different type of `Labor` that impacts the pricing of your materials . If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative description of each different type or class of `Labor` used in construction. Be sure that your descriptions are sufficient to distinguish each unique `Labor` type from the rest.

C. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Labor` services acquired from an outside (third-party) source. Leave this field blank for all `Labor` services are sourced in-house.

D. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Labor` services they provide to your organization.

E. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount that your organization must pay for a given type of `Labor`. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

F. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Labor` line-item in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Labor` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

G. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a given `Labor` line-item is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

H. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given line-item of `Labor`, <u>lock</u> the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information <u>unlocked</u> (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.
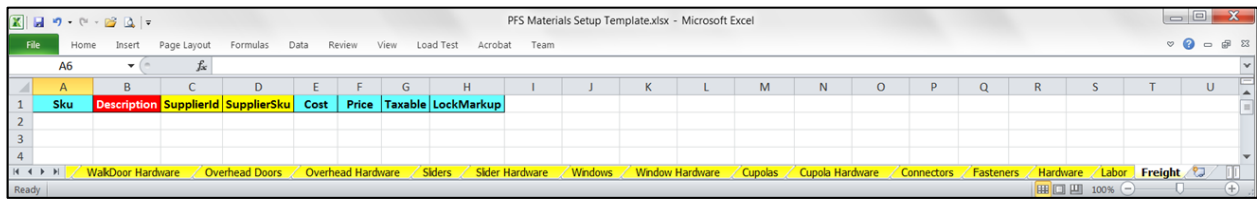
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Freight Tab

The 8 columns in the `Freight` tab (`Figure 23` below) are used to record detailed information the various types of `Freight` charges to be included in the calculation of job pricing. The <u>entire</u> `Freight` tab is itself OPTIONAL. (That is, you <u>DO</u> <u>NOT</u> need to enter or upload any `Freight` data into your *Materials Database* in order for SmartBuild to function properly.) If you <u>DO</u> elect to enter and upload `Freight` data, please note that the columns in this tab are COLOR CODED as follows:

Red = **REQUIRED** (<u>YOU</u> must provide a value in this column for each line item.)

Blue = **OPTIONAL W/ DEFAULTS** (If no values are entered, SmartBuild will provide default values.)

Yellow = **OPTIONAL** (No values are required and no default values will be provided.)

ALERT! Failure to enter data in accord with these color-coded parameters is likely to result in errors during the `Upload` process.

Figure 23: Of the 8 columns in the `Freight` tab, 1 is REQUIRED, 5 are OPTIONAL W/ DEFAULTS, and 2 are OPTIONAL.

The following paragraphs provide details about the purpose and requirements of each of the columns in the `Freight` tab. Each explanatory paragraph is "lettered" to correspond with the column name shown in `Figure 23`:

A. **Sku** – [OPTIONAL W/ DEFAULTS] The SmartBuild `Sku` column is used to provide a unique identifier each different type of `Freight` charges that impacts the pricing of your materials . If no value is entered into this column prior to uploading the file to SmartBuild, the application will automatically assign a default value of M*n*, where *n* is a sequentially assigned number. (Please see pages 12-16 for information about how to create SmartBuild `Sku` codes.)

B. **Description** – [REQUIRED] Use this column to enter a brief, informative description of each different type of `Freight` charge your organization incurs or charges in the acquisition and/or shipping of materials. Be sure that your descriptions are sufficient to distinguish each unique `Freight` charge from the rest.

C. **SupplierId** – [OPTIONAL] This column is used to record the unique identifier assigned by your organization to the *Supplier* of any `Freight` services acquired from an outside (third-party) source. Leave this field blank for all `Freight` services are sourced in-house.

D. **SupplierSku** – [OPTIONAL] This column is used to record the SKU code used by an outside (third-party) *Supplier* for any `Freight` services they provide to your organization.

E. **Cost** – [OPTIONAL W/ DEFAULTS] Enter the amount, in dollars and cents, that your organization must pay for a given type of `Freight` service. SmartBuild will automatically enter a default value of zero (0) in the *Supplier Materials Database* for all line items not assigned a `Cost`.

F. **Price** – [OPTIONAL W/ DEFAULTS] Enter the amount your organization will charge its customers for the given `Freight` line-item in dollars and cents. If you do not provide a value for a given line-item, SmartBuild will enter a default value of zero (0) when your `Freight` data is uploaded into the *Supplier Materials Database*. You can always edit `Price` data from within the SmartBuild interface at a later time.

G. **Taxable** – [OPTIONAL W/ DEFAULTS] This column is used to indicate whether a given `Freight` line-item is subject to some form of tax (Federal, State, local or other). Enter a zero (0) for nontaxable items, and a one (1) for taxable items. If you do not provide a value, SmartBuild will enter a default value of one (1) when your data file is uploaded to the *Supplier Materials Database*.

H. **LockMarkup** – [OPTIONAL W/ DEFAULTS] If you wish to prevent "downstream" users from changing the `Markup` your organization charges for a given line-item of `Freight`, lock the `Markup` field in the *Pricing Tables* by entering the numeral one (1) in this column. If you wish to keep pricing `Markup` information unlocked (i.e. capable of being changed), enter a zero (0) here. If you do not provide a value, SmartBuild will enter a default value of zero (0) when your data file is uploaded to the *Supplier Materials Database*.

The Upload Process

Once you have gathered the needed data for a given tab in the *Materials Setup Template*, the final step is to transfer that data into SmartBuild (As stated previously, we suggest that you complete and `Upload` the tabs in your *Materials Setup Template* **one tab at a time!**) The following describes the process of `Uploading` your data using *Microsoft Excel*; please adjust as necessary when using another spreadsheet application to perform this process:

1. Open the *Materials Setup Template* and select the tab at the bottom of the workbook that contains the data you wish to upload into your *Materials Database*.

2. Next, right click on the selected tab, and choose `Move or Copy` from the available options. A `Move or Copy` dialog box like the one pictured in `Figure 12` at right will open.

3. In the `Move selected sheets To book` field, click on the down-arrow and select `(new book)` from the list of options (as pictured in `Figure 12`). Also place a check in the `Create copy` checkbox at the bottom of the dialog. This will keep Excel from deleting the tab in your original (source) file.

4. Now click on the `OK` button at the bottom of the `Move or Copy` dialog box. Your selected tab will now open as its own Excel file, with no other tabs from the *Materials Setup Template* present.

Figure 24: Excel's `Move or Copy` dialog box.

5. `Save` your new Excel file to a location on your computer where you can find it easily for the next step, which is to `Upload` the file into SmartBuild. The particular name you assign to this file is of no consequence (as long as you can remember it).

6. Next, open SmartBuild and, from the `Settings` menu, click on `Setup Wizard`. The first page of the `Setup Wizard` will open, as pictured in `Figure 13` below. From the menu at the top of this page (red box in `Figure 13`), click on the *Materials Category* (tab) that you wish to `Upload`.
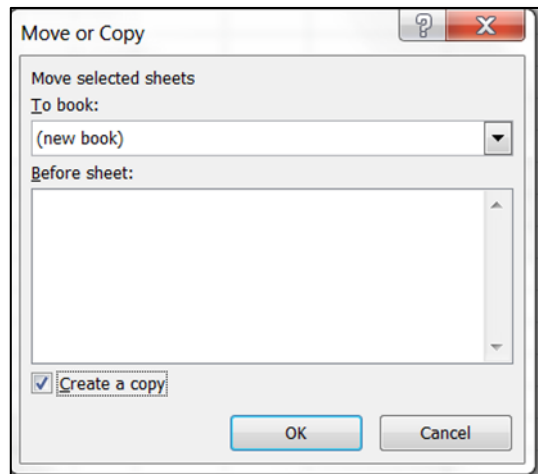

Figure 25: The top of SmartBuild's `Setup Wizard` window.

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7. The page for that *Materials Category* will open in the `Setup Wizard`. Locate the `Upload` button in the upper right-hand corner of this window and click on it (`Figure 14`, right). Now click on the `Choose File` button.

8. A dialog box will open that allows you to navigate to the target file on your computer. Click on the materials file you just created in Step 5 to select it, and then click on the `Open` or `OK` button (depending on your computer platform) at the bottom of the dialog box to close it.

9. Once your file has been selected (Step 8), SmartBuild's `Upload` process will initiate automatically. `Upload` times will vary depending on file size.
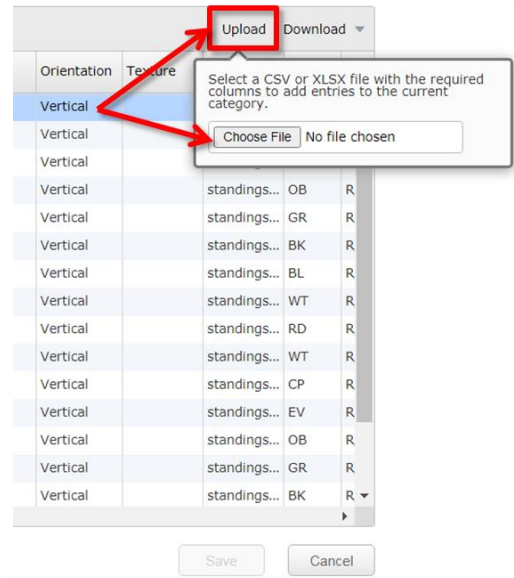

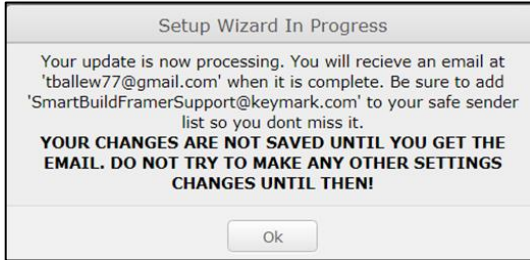**Figure 26:** Initiating the file `Upload` process using the SmartBuild `Setup Wizard`.

Figure 27: `Upload` confirmation message.

10. If your `Upload` process has been successful, the message box pictured in `Figure 15` will appear. As indicated, DO NOT make any additional changes to your *Materials Database* until this email message has been received and reviewed.

11. If you receive an error message during your `Upload` process, or if you have any questions about the confirmation email that you receive, please contact support@keymark.com.