

# McCormick Systems Inc.

Standard Training Manual Electrical

Version 12.1





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# SECTION I - INTRODUCTION TO BASIC JOB ESTIMATING

## **System Login**



This is the First Dialog box you see when you enter the application. At this time you are required to enter an existing User Name and Password to gain access to the program.

### **User Name**

First time Users should login using Admin for both the user name and the password. This makes it easier to copy and insert in the password field. Either **Est1** or **Est2** can also be used, the password again being the EXACT SAME AS THE USER NAME. The User Est2, is a power User with enhanced window set-ups.

NOTE: The User Names available may vary based on the estimating product you use.

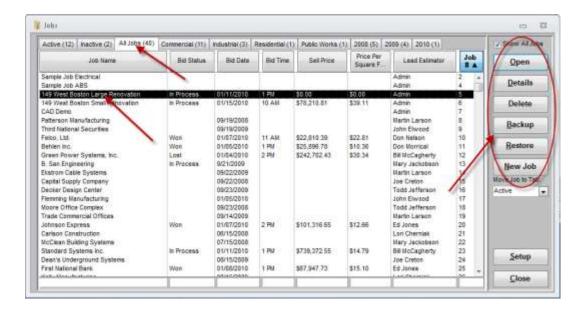
#### **Password**

The Login window also requires a password. For your first login, your password is the same as your User name (Admin, Est1, Est2, etc.) To change your password and/or to set up a new User, refer to Section II, Security. Once the Password is entered, click on the OK button.



#### STEP 1 – JOBS

#### **Jobs Screen**



The Jobs window opens itself when you start the application. If you need to open a job after the initial start-up of the software, you can come back to the Jobs window via the Jobs tab and Jobs icon in the ribbon, or the Jobs toolbar button. Initially, you select a job from the Active or All Jobs list, which appears on your screen by highlighting it with the mouse or arrow keys, then click on the option you would like to perform. [Open, Details, Delete, Backup, Restore or Select a Tab in the "Move Jobs to Tab" pull down]. Or begin an entirely new job by selecting New Job.

# \*For further details on the Job Screen, refer to Section II, Jobs

<u>NOTE</u>: The Template Jobs and number of jobs available may vary based on the estimating product you use.

#### **Job Detail Fields**





This is the Job Information window. Navigate through the Job Detail information using the tabs located at the bottom of the form. There are several information boxes you need to pay attention to when adding a new job in the Jobs Information window.

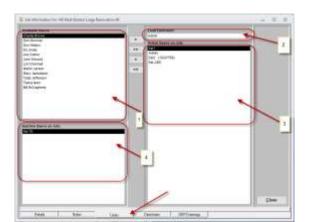
- 1. The field names that appear in the left hand column are default field names, and may be customized to fit any field name or information you want. \*See Set-up. The field names Job Name, Job #, Bid Date, Contractor Name, and Contractor Telephone are proprietary and cannot be edited.
- 2. Fill in the fields on the right hand column with information pertaining to the current job. This information can appear on various Reports & Forms throughout the program (i.e., "Extension & Bid Summary reports") if set-up to do so by the program (Job Name, Bid Date, Contractor Name, and Contractor Telephone) or by the individual User (merge fields in Export or Proposal). Otherwise, the data will remain here as a reference source for future use.

#### **Notes**



This is the place to enter special notes about the job and/or contractor preferences, special instructions about the job, or any other job specific information you want to keep handy. These notes appear in the first section of both Extension and Bid Summary reports.

# Jobs (contd.) Users





Use this screen to control current job. The User that assigned Lead Estimator

<u>Available Users</u> - (1) This of available Users to select security level other than on a job, you must move



which Users have access to the started the job is automatically status.

Area in the upper left shows a list for the job. Before any User with a Administrator can perform takeoff that User to the "Active Users on

Job" list on the right side of this window. If you need to add Users to the system, refer to Section II, Security.

<u>Lead Estimator</u> – (2) Use the pull down arrow in the field on the upper right side of the window to change the Lead Estimator for the job. Lead Estimator status is automatically assigned to the person who starts the job. The Lead Estimator can be changed at any point during the job. For example, you might need to pass estimating responsibility from one User to another during vacations or employee changes. However, this feature is security-limited to only the Users who have Administrator security access, or the original Lead Estimator.

<u>Active Users on Job</u> - (3) This information box displays a list of Users who have access to the current job and/or have performed takeoff.

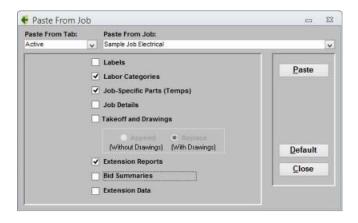
<u>Inactive Users on Job</u> – (4) After a User has performed takeoff, you might want to inactivate the User to eliminate their access to this particular job. Inactive Users are still part of the job in terms of their previous takeoff, but they are locked out of current access to the job.

#### **Directories**



The Directories tab doesn't allow any editing. It simply shows where and how the program was originally installed. Very handy when it comes time to do backups or otherwise manipulate your program.

#### Paste from Job



Paste from Job makes it possible to keep several default jobs on your system as templates for new jobs, or allow pasting from a past job that is similar to the one you are starting. When you start a new job, you can use one of these jobs as the source of the takeoff labels, temporary database, etc. For example, maybe you would like the extension reports from the Template Job & the Bid Summaries from a job you created last week. Simply select the job you would like to copy from, choose which portion you want, and **Click** the Paste button.

#### **Paste From Tab**

This pull-down lets you choose from any of the Tabs you have setup in the Job Screen. The default is the Active tab, but could be any Tab including Inactive. Some Users actually create a special Tab just for template jobs.

#### Jobs (contd.)

#### **Paste From Job**

This pull-down lets you select the job you're going to paste **FROM**. Clicking on the arrow to the right of the field can access a pull-down list of all available Jobs for the current Paste From Tab you are using. You can also sort through the list by highlighting the field and typing in the job name you are looking for. Note that the process is very specific. You *must* type the name *exactly* as it appears in the job list, including spaces and spelling, or it won't be found. Each time you start a new job, the **Paste From Job:** line will be the *last* job you pasted from.

#### **Paste Labels**

Select this option to paste Labels from the selected job. The takeoff labels organize the job into 'systems' of breakouts. Jobs can be organized according to sheet numbers, floors, buildings, alternate bid packages or combinations of these. There are as many ways to organize a job, as there are estimators. You can *only* paste Labels to your job *before* any takeoff is performed.



## Paste Labor Categories\*

Select this option to paste in Labor Categories from the selected job. These are multipliers that apply to the labor in the permanent database based on task difficulty. You may *only* paste Labor Categories to your job *before* any takeoff is performed.

#### Paste Job-Specific Parts\*

Select this option to paste in Job-Specific Parts (also known as the 'temporary database') from the selected job. The temporary database for a job contains items & assemblies that are unique to that job. The 'temporaries' may include a simple fixture list, special materials that are used on certain kinds of jobs or assemblies that are used one time only. Some people have been known to takeoff entire estimates from the temporary database only. You may *only* paste Job-Specific Parts to your job *before* any actual takeoff is performed in that area of the job.

#### **Paste Job Details**

Select this option to paste in Job Details from the selected job. *Please note this will also replace your current Job name*.

#### **Paste Takeoff and Drawings**

Select this option to paste in Takeoff from the selected job. When pasting Takeoff, you have two options, to Append (Without Drawings) to takeoff or Replace (With Drawings).

- If you have takeoff and want to keep it, select Append. This will ADD the takeoff from the selected job to the takeoff you've already performed.
- If you haven't done any takeoff for a job, or you would like to overwrite the current takeoff select Replace (With Drawings) and any Takeoff and Drawings will be put into the Job.

#### **Paste Extension Reports\***

Select this option to paste in Extension Reports from the selected job.

#### **Paste Bid Summaries**

Select this option to paste in Bid Summaries from the selected job. Pasting from an existing job will include any numerical data, requiring extensive editing. It will have no extension data to back up the numbers, unless the original extensions were Saved Edit Extensions and are also pasted to the current job.

#### **Paste Extension Data**

This function allows you to paste the Extension Data from the selected job.

#### Default

This option allows each User to choose his/her specific areas to paste for every new job. Once the choices are made, they will come up marked on any subsequent new job they begin.

\* Initial default selections when starting a new job. As a minimum, these should be pasted.



# STEP 2 - LABELS

### Labels



In the example above if the left box of a Label is clicked, that Label may be moved up or down in the column. Labels may be marked and deleted using the Delete button. Any Labels shown as blue have takeoff and cannot be deleted.

NOTE: The number of columns and labels per column available will vary based on the estimating product you use.

The Labels in the program allow breaking out parts of a job for taking off, extending, and printing out. The job can then be organized into breakout modules, each can be estimated separately, and bid prices can be figured for various



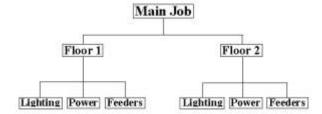
combinations of the breakouts. Different pricing levels can be developed for the same breakout based on different conditions. Structuring the Labels *before* taking off does this. Labels can be accessed by the Takeoff tab and Labels icon in the ribbon or the "(2) Labels" Toolbar button. In the example shown, the left column is normally used as the Bid Package containing the Labels that represent pricing given a customer. Examples are Base Bid, additive and deductive Alternates, and additive and deductive Change Orders. The additional columns show other ways of breaking the Job down such as by Building, Floors, Systems, Sheets, etc.

Labels may be used to separate areas of the Job for the release of Material, tracking Labor, value added engineering, etc.

Labels can be as simple as Base Bid and a series of none, or as Labels similar to that shown above.

In the following example, there are three levels of labels. The illustration shows a typical job broken out into Floor 1 and Floor 2. Floors 1 and 2 are each broken out into Lighting, Power, and Feeders.

NOTE: The "levels" broken down will vary based on the estimating product you use.



There can be many sets of labels that establish the degree of detail needed for a bid. Each column should contain a separate level of labels. All labels for the same level of takeoff MUST be in the same column, allowing the User to choose one label at a time from each level for takeoff.

#### Label Bar



The label bar allows you to easily see which **Labelset** you are currently doing takeoff in. Think of it as a Title Page for all of your current takeoff. Quickly change from one Labelset to another by clicking on the pull down arrow to the right of each label and selecting from the list of available labels for that column.

#### **Label Bar Entries**





A label can be added or replaced by highlighting a label and typing in a new label name. You will be prompted to **Add** or **Change**. Adding will place your new label at the bottom of the current list of labels, while changing a label will delete the current label and place the new one over the top of it. You can access the full Labels window through the Extension tab and Labels icon on the ribbon, or the <(2) Labels> toolbar button.

# STEP 3 - TAKEOFF

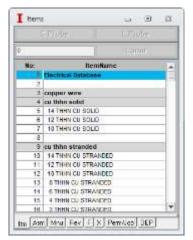
#### **Database**

#### **Item and Assembly Databases**



- 1. Choose the Item database, or
- **2.** Choose the Assembly database

#### **Items List**



All Takeoff is accomplished by using either an <u>Item</u> or Assembly list. From here you may select and count off your required materials. Labor and pricing information is saved with the individual parts and may be viewed or modified using



the <u>Review</u> tab. You also have the ability to move to, or create <u>Temporary</u> job items. These may be reached by using one of the following methods:

- Double right-click anywhere in the list with item names,
- Click the "PJ" tab if it is showing,
- Choose the Takeoff tab and the Permanent/Job Specific icon in the Tabs section of the ribbon when the window has *focus*.

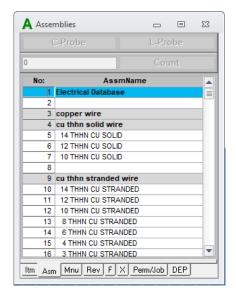
The fundamental component of the database is an <u>Item</u>. An item is an individual unit of material used for estimating. Everything in the database is composed of items. Even the assemblies are made from items, although they are called ByProducts when used in an assembly. Your permanent item database can have up to 100,000 items. It will help you to understand the database if you think of it as two parts:

- <u>Item List</u> Contains price and labor specifications for individual items.
- <u>Assembly List</u> Contains ByProducts (an item that is used as part of an assembly), prices and labor information about assemblies.

<u>NOTE</u>: The databases and ability to edit will vary based on Security and the estimating product you use.

**Tip:** You may enter a lump sum into the manual entry box by simply typing in numbers while the takeoff window has *focus*. You do not need to move the cursor into the entry box! Hitting return/enter will send the information to the Audit Trail. (Keyboard Mapping must be applied to the current takeoff window(s) for this to work.)

**Tip:** You can also perform minor math function directly in the input window (adding, multiplying, subtracting and division). You SHOULD NOT perform multiple math functions (such as adding *and* multiplying). **Assembly List** 



All takeoff is accomplished using either an Item or <u>Assembly</u> list. From here you may select and count off your required materials. Labor and pricing information is saved with the individual parts and may be viewed or modified using the <u>Review</u> tab. You also have the ability to move to, or create <u>Temporary</u> job assemblies. These may be reached by using one of the following methods:



- Double right-click anywhere in the list with assembly names,
- Click the "PJ" tab if it is showing,
- Choose the Takeoff tab and the Permanent/Job Specific icon in the Tabs section of the ribbon when the window has *focus*.

#### Takeoff (contd.)

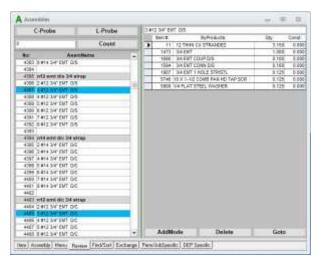
An <u>Assembly</u> is a collection of items (called ByProducts) that are frequently used together in the same fixed proportions. Exactly which items constitute an assembly varies with the construction trade, differences in the practice of that trade, variations in the building codes from area to area and your own preferences.

Everything in the database is either an Item or an Assembly. The advantage of using assemblies is that during the estimating process, taking off one assembly results in taking off all of the items the assembly is made of. In other words, assemblies group items together for takeoff, saving the time required to create an estimate item-by-item. Your assembly list can hold up to 100,000 assemblies. Each assembly can hold up to 256 ByProducts.

<u>NOTE</u>: You CAN edit an assembly for ByProducts after it has been taken off. If it hasn't been extended, it will read the new ByProducts when extended. If it has already been extended, simply re-extend to read the new ByProducts.

#### **Assembly Review ByProducts**

**Tip:** You may enter a lump sum into the manual entry box by typing in numbers while the takeoff window has *focus*. You do not need to move the cursor into the entry box! Hitting return/enter will send the information to the Audit Trail. (Keyboard Mapping must be applied to the current takeoff window(s) for this to work.)



There are **two** different review screens for Assemblies (<u>ByProducts</u> and Specifications). You may toggle between the two screens by clicking on the Review tab again. When you first select the Assembly Review tab you are brought to the byproduct screen. From here you may view or edit the individual items that make up an assembly. To build an assembly, open at least two takeoff windows. The first window must display the ByProducts for the assembly you're building. In the second window, you must select the item or assemblies you want to add to the assembly you're building. Clicking the <u>AddMode</u> button in the first window will cause a Transfer button to appear in the second.



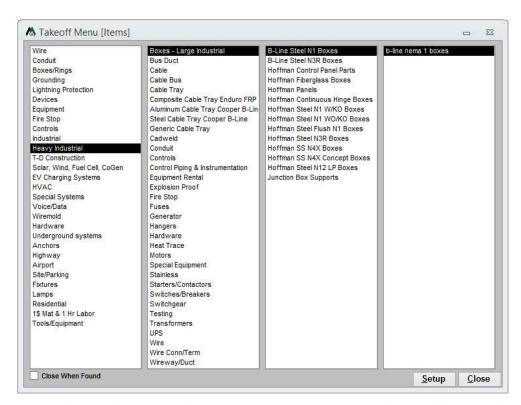
**Tip:** you can build assemblies with items or with other assemblies. To save time, consider starting a new assembly by copying a similar assembly and editing it to meet your own needs.

<u>NOTE</u>: The ByProducts can be used as either a quantity (Qty) or a constant (Const). In the above example, each time this assembly is taken off, the Qty of each ByProduct is multiplied by the takeoff amount. The constant remains the same. For example, a 10-foot length of takeoff of this assembly would yield 30' of wire, 10' of conduit, 1 coupling and 1.25 strap (based on a strap every 8'). It would also include just 2 connectors as they are being used as a constant and 3 feet of extra wire for makeup.

You will spend a lot of time in the Review screen for your item and assembly lists as you arrange items and assemblies in their proper positions within your database. While in Review mode, you still retain all of the functionality of the original takeoff list. (For example – You may still do takeoff using all of the different count methods.)

<u>NOTE</u>: You can change the name of the Assemblies in the list by choosing an assembly, holding down the CTRL key and hitting INSERT or clicking TakeOff Edit enabled in the Takeoff ribbon and Toolbars Header. This will highlight the entire list yellow. You can now change the name directly. In the Job Assembly list if you want to change the Fixtures, Panels, or Feeders, if there are matching ByProducts, and you click Enter, you will also be prompted, if you want to change these as well.





The Takeoff Menu is one of the easiest ways to find or select items or assemblies for takeoff. The left-most column of the Menu lists the most general categories. The next columns break down the categories into sub-categories, and sub-sub-categories. Moving from left to right allows you to select the category and sub-categories that represent the part you're looking for. Once you have reached the category in the farthest column to the right, highlight the final item. This will take you to the actual part or header in the "selected" takeoff list.

Using the Close When Found feature in the lower left corner of the window will close the menu automatically when a match is found in the database using the farthest right column. This will make your overall screen easier to work with, since it will not appear so cluttered with windows you don't need.

<u>NOTE</u>: The menu is "attached" to whatever window has the focus. So changing the window by moving to another window will also change the menu. Resizing the window itself can expand the columns in the Menu.





Navigation

Find/Sort



Use this screen to search the item and assembly databases that match the specified criteria. This is the quickest way to search for an unknown part. Please note that the <u>Title Bar</u> **Takeoff Find/Sort** lets you know which list you are going to be performing your search in (Items or Assemblies). To toggle between items or assemblies click on the tab of the current Takeoff window.

It is permissible to use a wild card (asterisk) in the search. This will replace any characters before the description you are looking for, including spaces. There are also a number of different methods to match your search:

- 1. Name by Item/Assembly # Will find matches by number in the database.
- 2. Name by Item/Assembly Name Will find matches alphabetically in the database.
- **3. Item/Assembly** # Will go directly to the item/assembly number listed in the What field.
- **4. DCI Code by DCI Code** Will find matches to DCI Codes numerically.
- **5. DCI Code by Item # -** Will find matches by item number sorted by DCI Code.
- **6.** Catalog Number by Item# Will find matches by item number sorted by Catalog number.
- 7. Manufacture by Item # Will find matches by item number sorted by Manufacturer.

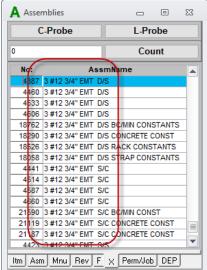
<u>NOTE</u>: The Find/Sort menus available may vary based on the estimating product you use and are defined per user.

Takeoff (contd.) <a href="Exchange">Exchange</a>





In conjunction with Find/Sort, another useful tool is the **EXCHANGE** feature. To use this feature, select a header (either by scrolling or through find/sort), and then **Click** on the **X** or **Exchng** tab at the bottom of the window. This brings up an alphabetical list of all the headers in the database. If you use Find/Sort in a general manner, this will make the Exchange even easier and more desirable, since scrolling through an alphabetical list is easier than memorizing all the different combinations of headers. Once the header you want is located, simply click on it to focus on it, then **Click** on the **X** or **Exchng** tab again and you will return to the normal database window.



The same feature can be used effectively if you wish to sort the database by a particular size or dimension. Simply find the defining size in actual Items or Assemblies (as above), then **Click** the **X** or **Exchng** from the tabs below the window.

#### **Toolbar Buttons**

#### **Default Toolbar Buttons**

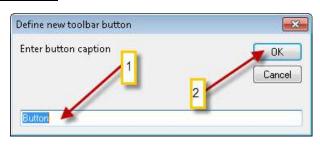
These are the first five Toolbar buttons. They are numbered 1 through 5 to indicate steps you take to move through the estimating process from creating a new Job to printing Bid Summaries.

**Tip:** These buttons were created to show you the ease & power with which you may create your own work screens. You will want to customize them as soon as possible to take advantage of your working style. We recommend you NOT customize buttons 1, 2, 4, and 5.

**Tip:** Double Clicking on the gray border that surrounds the Toolbar/Label bar will cause it to disappear from your work screen.



#### **Custom Toolbar Buttons**





Right Click on a toolbar button. If the button is blank, you will be asked for a name first (left). Otherwise you will be presented with the menu on the right.

#### **Delete**

This will delete the button you just selected. \*\*\*There is no Undo for this option!!!

#### Rename

You will be prompted for the New Name of the button you just selected.

#### **Snapshot**

Snapshot will save your current screen configuration and apply it to the selected button.

**Tip:** Make sure everything is in place before doing a snapshot since this is how your workscreen will appear whenever you access this button *as this specific User*.

### **Macro**

You will be prompted to type in the series of keystrokes that you wish the program to repeat every time the button is clicked. The only default macro is the Workspace toolbar button. *Do NOT do a snapshot on this button as it will replace the macro and change its function.* The Workspaces macro is {F10}KKLW, the "(2) Labels" macro is {F10}KKLB, and the "(4) Extend" macro is {F10}NNSS.

#### Takeoff (contd.)

#### Kevboard

This feature is designed to emulate the Keyboard procedures that previous McCormick Systems DOS Users are familiar with. After selecting Keyboard you will be asked which configuration you would like to map to the existing takeoff lists; 1, 2 or 3 window Keyboard Mapping. This only relates to the number of Takeoff lists you have on the screen (Example: For 1 Item list & 1 Assembly list you would select "2 Window").

**Tip:** Keyboard mapping only affects Takeoff lists, unless you specify otherwise, under <EDIT><KEYBOARD> from the pull down menu.

**Tip:** Keyboard mapping is also how Takeoff lists will allow automatic entering of input in the count field when you select an individual item or assembly.



# **Counting and Measuring**

#### **Power Probes**

One Line / No Menu Bar



#### Two Line / Menu Bar



**Tip**: Double click in the title block (McCormick logo) to turn the menu bar on or off. You can also close the probes while in the program by using the "X" in the title bar.

#### **Count**

This window is where the results of using the Count Probe will show up as you use the probe.

#### Length

This window is where the results of using the Length Probe will show up as you use the probe. The results will be based on the scale that is set.

#### Plus/Minus

This feature allows you to reverse the direction of takeoff for either probe from positive to negative. This can be very useful if mistakes are made (and caught) while doing takeoff. It will NOT work after values are actually input to the Audit Trail.

#### Takeoff (contd.)

**Tip:** Rolling off lengths can be accomplished with the Length Probe rolling either "forward" or "backward". It will always increase or decrease depending on the plus/minus button.

<u>NOTE</u>: Should you roll off a length in the wrong scale and realize it before you send it to the Audit Trail, you can simply change the scale and it will calculate the correct length automatically. Once a count or length is entered into the Audit Trail, starting a new count or length will "zero" the window and begin again. It is not necessary to clear the window each time.

#### Calculators





There are two (2) Calculator icons on the power probes, one next to both Count and Length. This is designed to bring up whatever value is currently showing in those windows, enabling the User to perform math functions on those values (i.e., figuring the number of couplings used for a specific length of conduit). Calculations can be sent to either the Count or Length windows by using Transfer. Clear (C) works like any calculator.

#### **Scale**

There are a number of ways to use the scale in the Power Probes. All of the functions of ScaleMaster® are available using the Power Probes, with the added ability to input the results directly into our program. The different options are noted below:

- **Typical** There is a list of typical scales available via the pull-down
- **Custom** You can create custom scales as needed from engineers/architects or for large scale jobs anytime and they are added to your pull down list
- **Metric** This is a combination of both Custom and Typical in that you adjust existing engineer scales to read as metric (i.e., 1=100 as meters instead of feet), then adjust the results to enter the Audit Trail as feet.
- **Reduced Drawings** This is a very helpful feature. It allows you to calibrate your length probe to the actual drawing, regardless of the original scale. The process is to set the scale to 1=1, roll off a *known length*, use the F2 key (the scale field will change to an equal sign), enter the known length with no space, and hit ENTER. Bring up the scale list, click on the new scale and the length window should show the original known length. Your length probe is now set to that scale for the rest of that drawing. Remember, you should do this for each sheet that doesn't match your original calibration, since you do not know what enlargement /reduction rate was used.

#### Takeoff (contd.)

#### **Shortcuts**

There are a few keyboard shortcuts built into the power probes that it would be helpful to know. To bring up the count calculator, use **F3**. To bring up the length calculator, use **F4**. You can clear the count/length windows by using **F5/F6** respectively. For example, if you have started counting or measuring and realize it's the wrong takeoff, simply choose F5 or F6 and it will reset the count/length windows back to zero.

#### Metric

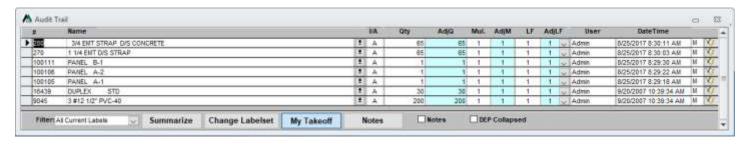
For the User doing metric jobs, there is only one basic difference with using our program...the database is in feet. The takeoff is done the same, the scales can be set to metric, but the results will still be based on feet! Our method of dealing with metric takeoff requires multiple steps to set-up.

- 1. SET the scale to the correct metric scale (use existing Engineer scales such as 1=10 or 1=100).
- **2. CLICK** on the I/M button to change the perspective of the scale (i.e., Imperial looks at a scale as Inches=Feet, Metric looks at a scale as Meters=Centimeters).
- 3. CLICK on Adj button to bring up the above window. Select the ADJUST box (this will give you a "tilde" symbol (~) next to the length, indicating you are in an Adjust mode while doing takeoff) and change the \*1 to \*3.2808 using the pull-down (this is the metric conversion factor).
- **4. CLOSE** this window.
- **5. DO** your takeoff. The results in power probes will be in meters and the Audit Trail will show the conversion to feet.



**6. REVERSE** the above steps (4-1) to return to Imperial takeoff.

# Auditing and Editing Audit Trail



### <u>NOTE</u>: The Audit Trail features will be available based on the estimating product you use.

The Audit Trail allows you to monitor what takeoff has been selected, where it is going, who did it and when. It also gives you the ability (if your security level and estimating product permits) to modify this information in real-time for the various adjustments. This will be the data that is sent to Extension. Think of the Audit Trail as a continuous record of every <a href="Item">Item</a> and <a href="Assembly">Assembly</a> taken off and notes showing the Labelset and scale.

From left to right the Audit Trail shows:

- # Item or Assembly number (Numbers above 100,000 are Job Items or Assemblies).
- Name Item or Assembly name or a Note.
- Pull down arrow that will show an Assemblies contents or go to an Items list.
- I/A "I" Item, "A" Assembly, or "N" Note.
- Qty Quantity of the Items or Assemblies taken off (cannot be adjusted).
- AdjQ Adjusted Quantity (this quantity goes to Extension).
- Mul. Multiplier used during Takeoff (cannot be adjusted).
- **AdjM** Adjusted Multiplier (the Multiplier may be adjusted here).
- **LF** Labor Factor uses during Takeoff (cannot be adjusted).
- **AdjLF** Adjusted Labor Factor (the Labor factor may be adjusted here by using the pull down arrow to the right).
- User Who did this Takeoff.
- **DateTime** Date and Time the Takeoff was done.
- The "P" in the column shows that the Takeoff was done using Design Estimating Pro and the "M" in the column shows that manual takeoff was done.
- Clicking on the "**Funnel with Lightning Bolt**" in the last column shows the horizontal run and drops used in the Design Estimating Pro Takeoff.

<u>NOTE:</u> Only Users with the proper security clearance can change the Adj. columns and the Design Estimating Pro Takeoff cannot be adjusted.

Takeoff (contd.)



# Audit Trail (contd.) Filter

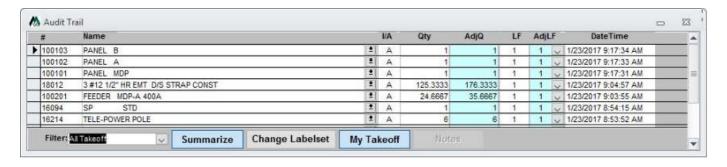


The Filter is a method of eliminating unwanted information from view in the Audit Trail to make it easier to use during takeoff. As shown above, it consists of several levels of filtering depending on the specific needs. The default Filter is **ALL CURRENT LABELS.** This filter will show only that takeoff done in the current labelset you are in. This will help eliminate confusion over takeoff done in other labelsets and facilitate editing in some of the subsequent areas covered. You can also change the filter, if your particular estimating product allows it, to your most commonly used choice and the program will remember (by User) what that setting is for future takeoff.

#### **Summarize**

### **NOTE**: The Audit Trail features will be available based on the estimating product you use.

No matter what Filter you are using, Summarize will collect all takeoff that is identical and compile the information within the Audit Trail. It will perform any math that may be required by the **Mul/AdjM** (Multiplier/Adjusted Multiplier) columns and reflect the proper **Qty/AdjQ** (Quantity/Adjusted Quantity) as determined by those columns. If similar objects are taken off, but have different **LF/AdjLF** (Labor Factor/Adjusted Labor Factor), they will **NOT** summarize, as they are **NOT** identical (they will combine and average when extended).



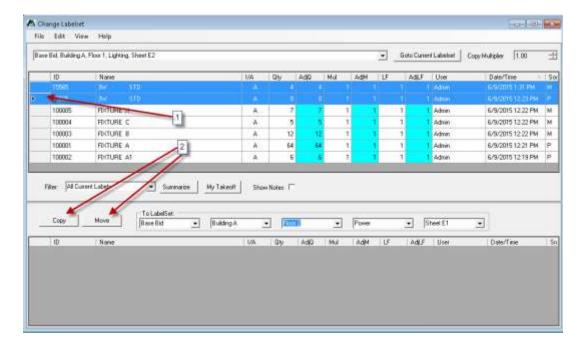
The visual indicators that you are in Summarize are the missing section of the Audit Trail that would normally show the Mul/AdjM columns and the Summarize button is highlighted. Notice the FEEDER MDP-A 400A 24.6667 shown in both the example windows. In Summarize, both have been compiled to show the total quantity of 12. It is important to note a couple of things here. You **CAN** continue to do takeoff while in the Summarize mode and it will "compile" your input as you go. On the other hand, you **CANNOT** edit while in Summarize, as the program has no idea where in the Audit Trail you wish to make your changes to the AdjQ, AdjM, or AdjLF.



#### **Change Labelset**

First open the Audit Trail then click **Change Labelset** button to open the window shown below. Design Estimating Pro must be closed before Change Labelset is used.

#### NOTE: You cannot use change labelset on Design Estimating Pro takeoff.



#### **Selecting Items and/or Assemblies**

1. The labelset selected in the *Audit Trail* will be shown in the upper half of the *Audit Trail Edit*. To select an individual item or assembly, click the small area to the left of the item or assembly where the reference arrow is located. To select more than one item or assembly, hold down the CTRL key and continue selecting. To select an entire block, highlight the first line in the desired block, scroll down to the last line in the intended block and then click on the line while holding down the SHFT key.

#### Move and Copy -

2. To Move or Copy items or assemblies to a new labelset, first select the items and/or assemblies to be changed, change the labelset in the "*To Labelset*:" area and then click either the Move or Copy button.

# Takeoff (contd.) Audit Trail (contd.)

#### Why Move and Copy?

When the **Copy** button is clicked, the labelsets for the selected items and/or assemblies will be added to the labelset in the "To Labelset:" area, while the **Move** button will create a copy of the items and/or assemblies in the labelset in the "To Labelset:" as well as add another copy of each item and/or assembly selected with a negative count (resulting in a zero quantity) for the original labelset the item or assembly is located in. **\*For further information on the "Change Labelset", refer to Section II, Audit Trail** 

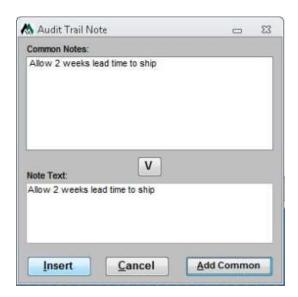


**NOTE:** The Change Labelset availability will vary based on the estimating product you use.

#### My Takeoff

My Takeoff is another Filter. In this case it filters out everyone else's takeoff that may be working in the current job. If you are the only User on the job, this will have no effect, either enabled or disabled. But if others are also working, you can see what they have been taking off (based on the actual Filter being used). This is true for both stand-alone systems and networks. The difference will be that on the stand-alone system, the Users' takeoff will be grouped, since only one User may work at a time on the system. The network will allow you to monitor the stream of takeoff directly as it happens.

#### **Audit Trail Notes**



If you want to add a note to an audit trail item, the note should be added prior to doing the takeoff since the note should appear BEFORE the takeoff in the Audit Trail Report (but can be added at any time). Click on the takeoff item or assembly at

the top of the Audit Trail, and then press the <u>Note</u> tab on the bottom of the Audit Trail. The Audit Trail Note window opens to let you enter the note. Remember, the only filter that allows you to see the note is ALL TAKEOFF and must be the active filter for both the on-screen Audit Trail as well as the report. Audit Trail Notes is an excellent way to make notes about why you are making changes to the takeoff for future review of the job.

#### **Common Notes**

This area contains Notes that you have decided are Common. These are the memos you use on a daily basis or maybe just complex notes you don't want to type again and again. Click Update to update the note with any changes you have made.

#### Transfer Down - V

Use this button to move the selected note from Common into the Note field, and then choose Insert.

#### **Note Text**

Use this area to type in your note(s).



#### **Insert**

After typing in your note, click here to insert the note into the Audit Trail. (Depending on whether you are adding a new note or editing an existing one, this button may say "Update".)

#### Add to Common

After typing in your note, you may add it to your list of reusable notes by clicking here.

#### Notes

The Notes check box allows the User to see notes that may have been inserted for the current filter being used. This is helpful when in All Current Labels, as only those notes for the current labelset will appear.

### **Editing the Audit Trail**

The main reason for the Audit Trail is the ability to edit the takeoff you've done directly, without having to re-do or modify your takeoff. The Audit Trail consists of the Reference Number (#), the Description (Name), an Item/Assembly indicator (I/A), Quantity (Qty), Adjusted Quantity (AdjQ), Multiplier (Mul), and Adjusted Multiplier (AdjM), Labor Factor (LF), Adjusted Labor Factor (AdjLF), User indicator, and a Date/Time stamp.

**Tip:** You can delete any line in the Audit Trail, depending on estimating product and security, by highlighting the line you want to delete and pressing the delete key on the keyboard.

- # The reference number is just that; the last used number location of the Item or Assembly that was taken off.
- Name The name of the Item or Assembly that was taken off.
- I/A Indicates whether the takeoff is an Item or Assembly (relates back to the reference number so you know which database to look in).
- **Qty** This is the ORIGINAL takeoff quantity.
- AdjQ This is the same as the Qty unless you need to change it (this is the only place you can make changes to quantity directly in the Audit Trail). Then it becomes the ACTUAL takeoff quantity. Any and all reports read the adjusted columns ONLY.
- **Mul**—Indicates the multiplier used during takeoff (set from <TAKEOFF><MULTIPLIER> in the pull-down). We suggest using this feature if you are fairly certain there will be no changes to the takeoff. Otherwise, we recommend you takeoff the quantities per label, then multiply the label in EXTENSION.

### Takeoff (contd.)

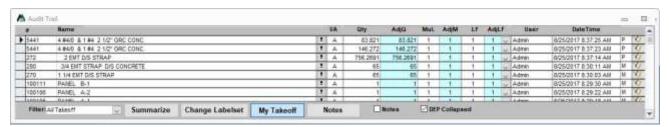
#### **Audit Trail (contd.)**

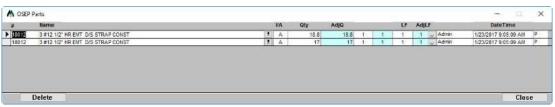
- AdjM This is the same as Mul unless you need to change it (this is the only place you can make changes to multiplier directly in the Audit Trail), then it becomes the ACTUAL multiplier. The results of the multiplication will be reflected when you Summarize.
- **LF** This indicates the Labor Factor used during takeoff (can be set in the individual Takeoff windows using the UTILITY MENU). This multiplier is applied to the labor in the database for each item taken off, whether used alone or a byproduct of an assembly. Remember, this multiplier is based on task or difficulty.
- AdjLF This will be the same as LF unless you need to change it (this is the only place you can make changes to labor factor directly in the Audit Trail), then it becomes the ACTUAL labor factor. Since the Labor Factor is selected from a list, the Adjusted Labor Factor must also be selected from a list, a pull down is provided for that purpose. Remember, the program is only interested in the numerical value, not the description. ANY value you want can be selected in the list, as long as it gives you the results you want.
- User This is the User Name (assigned by the program when Users are created in SECURITY).
- **Date Time** This indicates the Date and Time takeoff was done. Note it is tracked out to hundredths of a second. This is so network Users can track multi-User takeoff immediately as it's done.



#### **Assembly Review**

The final feature of the Advance Audit Trail is the ability to review Assemblies that have been taken off for content.







The ByProducts of the "3 #12 1/2" HR EMT D/S STRAP CONST" assembly with Goto

Assm. and Goto Items buttons is shown. Also the Design Estimating Pro Parts window showing the horizontal run and the drops is shown by clicking on the Funnel with Lightning Bolt on the right. When the Design Estimating Pro Collapsed check box is checked, the drop and horizontal run are shown combined. This is a report window and does not allow direct changes but has options to allow review/editing of individual ByProducts as well as the total assembly. Reviewing while in Takeoff allows you to select an individual byproduct and select GoTo Item. This will automatically open/change a Takeoff window to Items and highlights the selected item. You can now review/edit that item. The same can be done for the actual assembly by choosing GoTo Assm. This will automatically open/change a Takeoff window to Assemblies and highlights the selected assembly. You then review or apply the steps for editing.

NOTE: The Assembly Review availability will vary based on the estimating product you use.

#### STEP 4 – EXTENSION

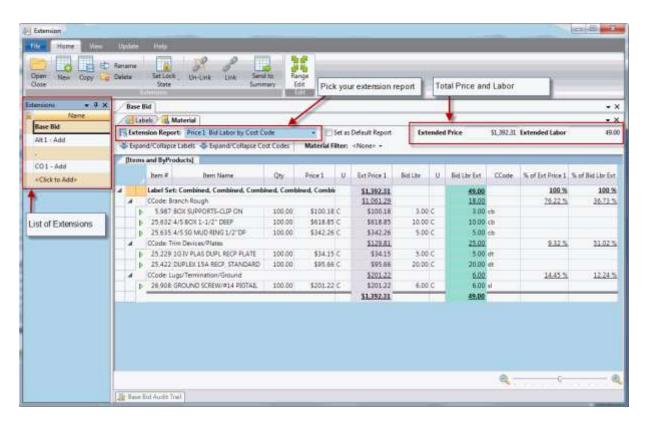
When Extension is opened, it shows you all of the material with the default report and labelsets checked as all/all combined.

From there you can change the labelset combinations, change the reports, and make new extensions, all from the single screen, instantly.

#### **Work Flow with Extension**

After you do your takeoff, launch extension. It will look something like this.





By default, it brings up the first report in your report list, and comes up combined ALL/ALL.

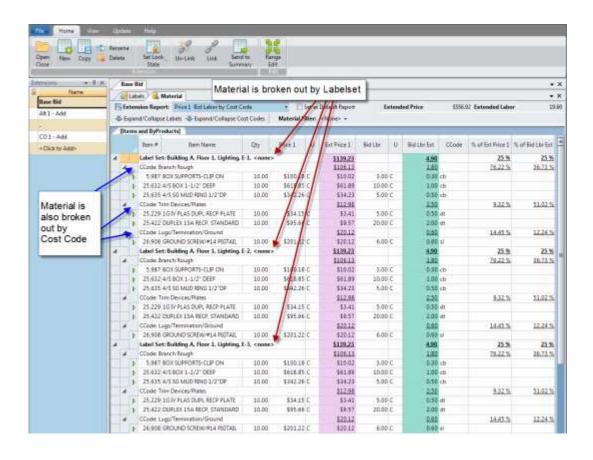
### **Extension (contd.)**

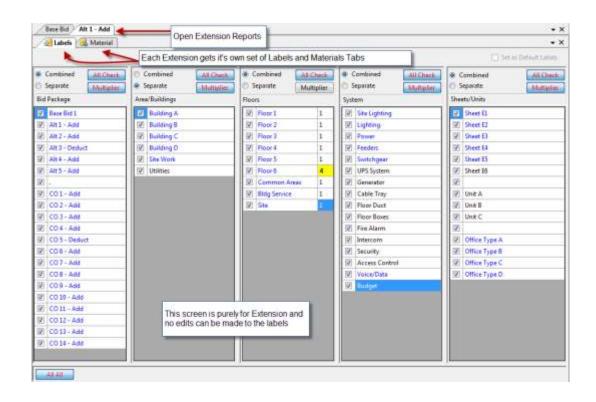
Switch over to labels to pick what we want for Ext1.



And this is what the result will look like.





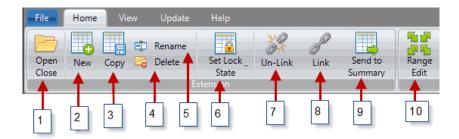




Each extension has its own labels and material tab. You can switch back and forth to immediately filter in or out desired labelsets. Adjustments to multipliers and setting the column as separate or combined, is also immediate.

The tab across the top shows which extension report you are currently looking at.

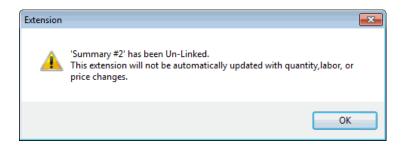
# **Extension (contd.) Home Ribbon**



- 1. Open/close selected extension
- 2. Create **new** extension
- 3. Copy selected extension
- 4. **Delete** selected extension
- 5. Rename Selected extension
- 6. Set Lock state
  - a. Unlocked
  - b. Locked (can be unlocked by anyone)
  - c. Exclusively Locked (Only user who locked or Admin can unlock)



7. Unlink from database – Prevent database changes and additional takeoff from entering the extension. Only used when you have submitted the bid or don't want changes to affect other extensions.



- 8. Link back to the database pull in quantities, prices, and labor if they are different.
- **9. Send** totals to the Bid Summary



As shown above, to Range Edit, first select a Header, or (price, quantity, etc.), or a group of (prices, quantities, etc.) which may be marked by using the control or shift keys. Then click Range Edit and select the type of editing and enter a value.

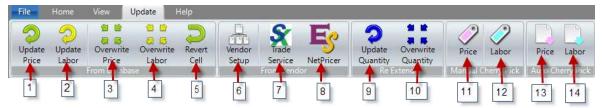
#### View Ribbon





- 1. Turn the main **extension** view, on or off.
- 2. This will show what assemblies contain the byproduct you have selected.
- **3. Zoom** control controls the zoom of the Extension material.
- 4. Break out by report grouping.
  - a...If Show Report Grouping is checked / Label set to Combined, the report is only separated by Cost Codes.
  - b. If Show Report Grouping is checked / Label set to Separate, the report is separated by Cost Codes within each Label.
  - c. If Show Report Grouping is unchecked / Label set to Combined, the report is sorted by Item number.
  - d. If Show Report Grouping is unchecked / Label set to Separate, the report is sorted by Item number within each Label.

# Extension (contd.) Update Ribbon



- 1. Pulls any **updated prices** from the database, skips manually adjusted prices.
- 2. Pulls any updated labor

from the database, skips manually adjusted labor.



Update prices only shows unlinked extensions as linked extensions already show database prices.

- 3. Overwrite prices from
- 4. Overwrite labor from

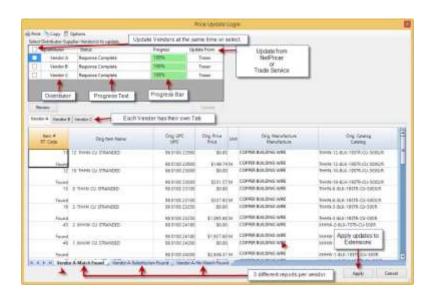


the database, overwrites manually adjusted prices. the database, overwrites manually adjusted labor.



Overwrite prices shows live and unlinked, it will replace manually edited prices.

- **5. Reverts** selected cell in extension back to previous settings
- **6. Setup Vendors** for the Vendor price update. As a User of McCormick, McCormick's Technical support department will assist a User in setting up Vendor price updating. Call 800-444-4890 for that help.
- 7. Launch the **Trade Service** price update interface
- 8. Launch the NetPricer Price update interface.



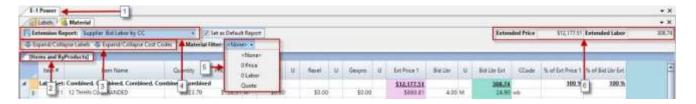


- 9. Pulls any updated Quantities from the database, skips manually adjusted Qtys.
- 10. Overwrites Quantities from the Database, overwrites manually adjusted Qtys.
- 11. Set Price column if there are multiple Price columns.
- 12. Set Labor column if there are multiple Labor columns.
- **13.** Auto select **lowest price** in each Price column if there are multiple Price columns.
- **14.** Auto select **lowest labor** in each Labor column if there are multiple Labor columns.



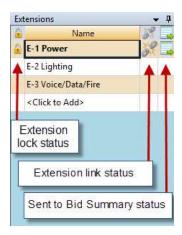
*Options 1, 2, 8, are only for unlinked extensions.* 

# Extension (contd.) Update Ribbon (contd.) Extensions



- 1. The active **tab** extension you are working in is highlighted.
- 2. The type of **report** you are viewing, Items, Items and ByProducts, or assemblies.
- **3.** A view option to **expand or collapse** the labels and/or Cost Codes.
- **4.** The current **extension report**, you can change these. If you sent to bid summary, the extension report sent is checked.
- 5. Filter to check for items that do not have either Price, Labor or marked as Quote.
- **6.** Current Price and Labor totals for the shown extension.

#### **Extensions List**



This is the list of **Extensions**. On the left is the **Lock** symbol, you can lock down an entire extension from editing. It can be unlocked, locked (unlockable by anyone), or exclusively locked (which can only be unlocked by an Admin, or the person who locked it).

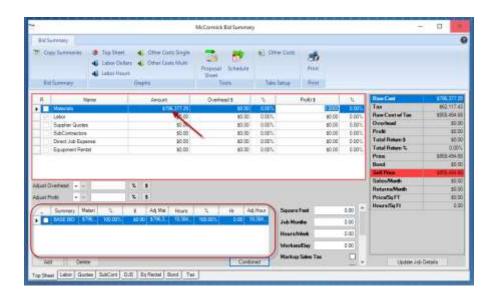
On the right is the **database link** symbol for each extension. The purpose of unlink is to freeze the extension. Unlinking live data will prevent price, labor, quantity changes, or takeoff from flowing into the extension.

The **send to summary** is next to that, which indicates if the final numbers have been pushed into Bid Summary or not.

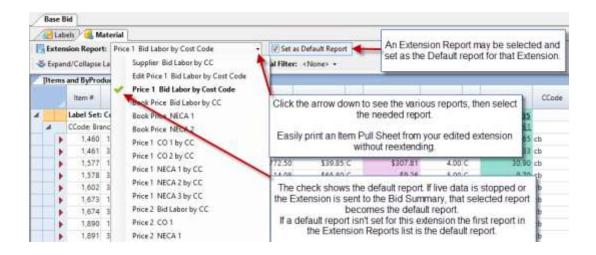


#### **Sending Extension Data to Bid Summary**

Once you are satisfied with the modifications made to an extension, it's time to send the Extended Price and Labor to Bid Summary.



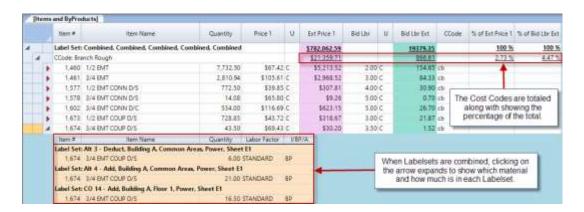
#### **Extension Reports**



Extension (contd.)
Extension Main Body

#### **Labelsets combined**





### **Expand/Collapse Options**

#### Default view with labels separate

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|---------|--|---|--|--|---|---|--|---|----------------------|--|--|--|
| Exten   | nsion Report   | Edit Price 1 Bull abor by Cost  | Code   | 10 Set   | as Default Repo   | ort   |  | Mate  | dal Filter: <        | None   | - Extended Pri   |  |
| 900     |  | bets - Expand/Collegne Cost   |  |  | 72000   |   |  |   |                      |  |  |  |
|         | and ByProdu  |   |  |  |   |   |  |   |                      |  |  |  |
| prema   | item#  | ben Name  | One  | Book Price   | D BOART I   | J Price 1   | Ext Price 1  | Bid Libr U  | Risk Star East.      | % of Est Price 1   | Street Bast the fire   |  |
|         |  | ase Bid. Building A. Floor 1, Po  |  |  | 50000000  |   | \$45.29  | 200 000   | 1.43                 |  | 2.68 %   |  |
| 4       | CCode Bron   | the letter the property of the latter than the  | 0.000  | 70   |   |   | 121.91   |   | 0.53                 | 61.86%   | 26.64 %  |  |
|         |  | BOX 1-1/2" DESP   | 4.00   | \$865.02 C   | 0.60  | \$519.01 C  | \$20.76  | 10:00 C   | 0.43                 |  |  |  |
|         |  | 2G MUD RING 1/2*DF  | 2.00   | \$684.72 C   | 0.80  | \$410.83 €  | 18.22  | 5-00 C  | 0.30                 |  |  |  |
| A       | CCode: Han   | pers/Anchers  |  |  |   |   | \$1.80   |   | 0.06                 | 1313   | 4215   |  |
|         |  | X SUPPORTS-CUP ON   | 2.00   | \$150.29 C   | 0.60  | \$90.17 C   | \$1.80   | 3.00 C  | 0.06                 |  | 2027   |  |
|         | CCode: Trim  | Denites/Plates  |  |  |   |   | \$11.14  |   | 0.72                 | 24.59 %  | 50,52 %  |  |
|         | 14,745.20  | IV 2.15" PLAS POWER PLATE   | 2.00   | 1417.64 C  | 0.60  | \$250.58 C  | \$5.01   | 6.00 C  | 0.12                 |  |  |  |
|         | 14,917,50  | AMP RECR. STANDARD  | 2:00   | \$510.46 C   | 0.60  | \$306.28 C  | \$6.13   | 30.00 €   | 0.60                 |  |  |  |
| 4       |  | /Termination/Onsural  |  |  |   |   | 12.22  | Service.  | 0.12                 |  | £42 %  |  |
|         |  | DUND SCREW/#14 PIGTALL  | 2.00   | \$283.26 €   | 0.60  | \$168.76 C  | \$3.38   | 8.00 C  | 0.12                 |  | and Joseph   |  |
|         |  | it 1 - Add, Building A, Floor 1.  | Power, She   | et II  |   |   | \$1,185.98   |   | A9,00                |  | 92,32 %  |  |
| 4       | CCode: Bran  |   |  |  | 1 10 477  | (48227115   | \$806.05   | 25.46.4   | 25,00                |  | 30.61.74   |  |
|         |  | BOX 1-1/2" DBEF   | 100.00   | \$865.02 C   | 0.60  | \$519.01 C  | \$530.01   | 10.00 C   | 10/00                |  |  |  |
| ,       |  | SG MUD RING 1/2"DF  | 100.00   | \$478.39.C   | 0.60  | \$287.03 C  | 5287.03  | 5.00 C  | 3,50                 |  | 25000  |  |
| *       | CCode: Han   | R SUPPORTS CLIP ON  | 109.05   | \$150.29 C   | 0.60  | \$90.17 C   | \$90.17<br>\$90.17   | 3.00 C  | 3.00                 |  | 6,22,5   |  |
|         |  | Devices/Plates  | 100.00   | 3130.58 C  | 0.00  | \$90.11 (   | 1121.01  | 1.00 €  | 25.00                |  | 31.02%   |  |
|         |  | DV PLAS DUPL RECP PLATE   | 100.00   | \$51.39°C  | 0.60  | \$30.83 C   | \$30.63  | 5.00 C  | 5-00                 |  | 14406.0  |  |
| - 5     |  | PLEX 15A RECP, STANDARD   | 100.00   | \$150.29 C   | 0.80  | \$90.17 C   | 100.17   | 20.00 C   | 20.00                |  |  |  |
| 4       |  | /Termination/Graund   | 20100  | 323120.0   |   | 10000   | 1166.76  | 20.40   | 6.00                 |  | 1224%  |  |
|         |  | OUND SCREW/#14 PROTAIL  | 100.00   | \$281.26 C   | 0.60  | \$168.78 C  | \$168.76   | 6.00 C  | 8.00                 |  | -  |  |
|         |  | R 2 - Add, Building A. Floor L.   | Power, She   |  |   |   | \$87,92  |   | 2.65                 |  | 4.99 %   |  |
| 4       | CCode Bross  | nh Rough  |  |  |   |   | 837.67   |   | 1.14                 |  | 37.86.5  |  |
|         | 1.001 1  | 2 EMT   | 30.36  | \$82,43 C  | 1.00  | \$82.43 C   | \$25.03  | 2.00 C  | 0.61                 |  |  |  |
|         | Diems and B  | Products  |  |  |   |   | iew of the   |   |                      | Bapsed, you get a quick<br>Habor.  |  |  |
|         | then # them Name Qty Book Price U  |   |  |  |   |   | tea of the   | material a  | na laboi             | T.   |  |  |
|         |  | # Item Nans   |  | Qty  | Book Price  | U Face  | New OI THE   | materiai a  | nd laboi             | T.<br>THE OF THE POOR PERSON   | NO NO PE   |  |
| 100     | Label  | F Item Name<br>Set: Base Bid, Building A, Flo   |  |  | Book Price  | Price   | 360-1  | P THE P SHI   | nd labor             | 66.61.7  | 2.77   |  |
| 15      |  |   | or 1. Light  | ng. Sheet E3   |   | 5991.915.9  | 460-1  | 196.71<br>14.34   | nd laboi             | THE OFFICE PROPERTY.   |  |  |
| 1519    | Label  | Set: Base Bid, Building A, Flo  | or 1. Lighti<br>or 1. Lighti   | ng, Sheet E1<br>ing, Office Type   | A   | Price   | 1  | 196.71  | nd labor             | 96,61.7  | 6 0.2  |  |
| 3.09    | Label  | Set: Base Bid, Building A, Flo<br>Set: Base Bid. Building A, Flo  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti   | ng, Sheet El<br>ng, Office Type<br>ng, Office Type   | A .   | \$991.915.8<br>\$1.023.4  | 960=1<br>1<br>2  | 196.73<br>14.34   | nd labor             | 96.61.7<br>0.07.7  | 6 0.25<br>6 0.36   |  |
| 3749    | Label<br>Label<br>Label  | Set: Base Bid, Building A, Flo<br>Set: Base Bid, Building A, Flo<br>Set: Base Bid, Building A, Flo  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti   | ng, Sheet E3<br>ng, Office Type<br>ng, Office Type<br>ng, Office Type  | A .   | \$991.915.9<br>\$1.023.4<br>\$1.719.2   | Second<br>I<br>I<br>Z  | 196.71<br>14.34<br>27.44  | nd labor             | 96.61.7<br>0.02.7<br>0.12.2  | 6 0.25<br>6 0.39<br>6 0.42   |  |
| 3749    | Label<br>Label<br>Label<br>Label   | Set: Base Rid, Building A. Fic<br>Set: Base Rid, Building A. Fic<br>Set: Base Rid, Building A. Fic<br>Set: Base Rid, Building A. Fic  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ng, Sheet E1<br>ng, Office Type<br>ng, Office Type<br>ng, Office Type<br>, Sheet E1  | A<br>B<br>C   | \$993,915,9<br>\$1,023,4<br>\$1,739,2<br>\$1,963,0  | 1<br>1<br>2<br>2   | 196.71<br>14.34<br>27.44<br>29.89   | nd labor             | 06.61.7<br>0.07.7<br>0.12.5<br>0.13.7  | 6 0.23<br>6 9.39<br>6 9.42<br>6 9.75   |  |
| 3749    | Label Label Label Label Label  | Set: Base Bid, Building A, Flo<br>Set: Base Bid, Building A, Flo<br>Branch Rough  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ng, Sheet E1<br>ng, Office Type<br>ng, Office Type<br>ng, Office Type<br>, Sheet E1  | A<br>B<br>C   | \$991.913.9<br>\$1,023.4<br>\$1,739.2<br>\$1,963.0<br>\$1,740.3<br>\$1,740.3<br>\$1,740.3   | M 1 2 2 5 4 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 196.73<br>14.34<br>27.44<br>29.89<br>53.56<br>5.38<br>2.32  | 1                    | 96.61.7<br>0.07.9<br>0.12.9<br>0.13.9<br>0.12.9  | 6 0.25<br>6 0.38<br>6 0.425<br>6 0.755<br>6 0.08   |  |
| 3.09    | Label  | Sett Base Bid, Building A. Fid<br>Sett Base Bid, Building A. Fid<br>Branch Sough<br>42 1/2 SSLOCKNUT  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ng, Sheet E1<br>ng, Office Type<br>ng, Office Type<br>ng, Office Type<br>, Sheet E1  | A B C SI 235 S  | 1991-9158<br>11-021-4<br>11-729-2<br>51-9630<br>51-740-3<br>517-40-3<br>517-40-3<br>517-40-3<br>517-40-3  | Met=1<br>1<br>2<br>5<br>4<br>4<br>2<br>0<br>1 0.10 E   | 196.73<br>14.34<br>27.44<br>29.69<br>53.56<br>5.38<br>2.32<br>0.20  | cb C                 | 96.01.7<br>0.07.9<br>0.12.9<br>0.13.9<br>0.12.9  | 6 0.25<br>6 0.38<br>6 0.425<br>6 0.755<br>6 0.08   |  |
| 3.09    | Label  | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic<br>Boach, Rough<br>42 1/2 SS LOCKNUT<br>47 BOX SUPPORTI-CLIP ON  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ing, Sheet E1<br>ing, Office Type<br>ing, Office Type<br>ing, Office Type<br>, Sheet E1<br>c, Office Type A<br>2.00<br>8.00  | A B C S1,235.5: \$166.P   | 1991-9158<br>\$1-0214<br>\$1-7992<br>\$1-9630<br>\$1-7403<br>\$1740<br>\$1210<br>\$1210<br>\$1 247  | 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  | 196,73<br>14,34<br>27,44<br>29,89<br>53,56<br>5,38<br>2,32<br>0,20<br>0,00  | cb cb                | 96.01.7<br>0.07.9<br>0.12.9<br>0.13.9<br>0.12.9  | 6 0.25<br>6 0.38<br>6 0.425<br>6 0.755<br>6 0.08   |  |
| 3749    | Label  | Sett Base Bid, Building A. Ho<br>Sett Base Bid, Building A. Ro<br>Sett Base Bid, Building A. Ro<br>Boxolo Rough<br>42 12/2 SLOCKNIT<br>47 BOX 9LPPONTI-CLIP ON<br>97 1/2 PVC 40  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ng, Sheet E1 ing, Office Type ing, Office Type ing, Office Type is, Sheet E1 i. Office Type A 2.00 6.00 20.00  | A B C C S1,235.5: \$166.94 \$12.2:  | \$991313.5<br>\$1,299.2<br>\$1,299.2<br>\$1,299.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1,240.3<br>\$1 | 3 2 2 3 4 4 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 196.71<br>14.34<br>27.44<br>29.89<br>53.55<br>5.25<br>2.25<br>0.20<br>0.00  | cb<br>cb             | 96.01.7<br>0.07.9<br>0.12.9<br>0.13.9<br>0.12.9  | 6 0.25<br>6 0.38<br>6 0.425<br>6 0.755<br>6 0.08   |  |
| 3749    | Label  | Sett Base Bid, Building A. Fid<br>Sett Base Bid, Building A. Fid<br>Base Bid, Building A. Fid<br>Base Bid, Building A. Fid<br>Fid Base Building Bid<br>Fid Base  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ng, Sheet EI<br>ing, Office Type<br>ing, Office Type<br>ing, Office Type<br>i, Sheet EI<br>2.00<br>8.00<br>20.00<br>2.00   | S1,235.5.<br>\$166.9<br>\$12.2<br>\$41.7  | \$99,935<br>\$1,022,4<br>\$1,063,0<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,7 | 460-1<br>1<br>2<br>2<br>4<br>2<br>2<br>0<br>0<br>1<br>0.30 t<br>7<br>0.00 c<br>4.10 c<br>3<br>0.34 t   | 196,71<br>14,34<br>27,44<br>29,89<br>53,55<br>5,38<br>2,52<br>0,70<br>0,00<br>0,82<br>0,82<br>0,82<br>0,83<br>0,83<br>0,83<br>0,83<br>0,83<br>0,83<br>0,83<br>0,83  | cb<br>cb<br>cb       | 96.01.7<br>0.07.9<br>0.12.9<br>0.13.9<br>0.12.9  | 6 0.25<br>6 0.38<br>6 0.425<br>6 0.755<br>6 0.08   |  |
| 3749    | Label  | Sett Base Bid, Building A. Fid<br>Sett Base Bid, Building A. Fid<br>Dearch Sough<br>42 1/2 SS LOCKNUT<br>47 BOX SUPPORTI-CUP ON<br>97 1/2 PVC 40<br>65 1/2 PVC 40<br>67 1/2 PVC 40  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ng, Sheet EI<br>ing, Office Type<br>ing, Office Type<br>ing, Office Type<br>, Sheet EI<br>c. Office Type A<br>2.00<br>20.00<br>2.00<br>5.00  | S1,235.5.<br>\$166.9<br>\$12.2<br>\$41.7<br>\$1.031.4   | \$91,913,9<br>\$1,022,4<br>\$1,782,2<br>\$1,962,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1,740,0<br>\$1 | 4 4 10 C 3 0.14 £ 9 30.00 C  | 195,71<br>14,34<br>27,44<br>29,89<br>51,55<br>1,35<br>1,22<br>0,20<br>0,00<br>0,82<br>0,28<br>1,80  | cb<br>cb<br>cb       | 96.01.7<br>0.07.9<br>0.12.9<br>0.13.9<br>0.12.9  | 6 0.25<br>6 0.38<br>6 0.425<br>6 0.755<br>6 0.08   |  |
| 3749    | Label  | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic<br>Bosoch Rosegi<br>42 1/2 SS LOCKNUT<br>47 BOX SUPPORTI-CLIP ON<br>97 1/2 PVC 40<br>SS 1/2 PVC MALE TERM<br>32 4/5 SOX 14-1/2* DEP<br>35 4/5 SOX 14-1/2* DEP  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ng, Sheet EI<br>ing, Office Type<br>ing, Office Type<br>ing, Office Type<br>i, Sheet EI<br>2.00<br>8.00<br>20.00<br>2.00   | S1,235.5.<br>\$166.9<br>\$12.2<br>\$41.7  | \$191.913.9 \$1.022.4 \$1.790.2 \$1.963.0 \$1.740.0 \$  | 1 2 2 2 4 4 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0  | 196,71<br>14,34<br>27,44<br>29,89<br>31,55<br>2,35<br>2,25<br>0,20<br>0,00<br>0,42<br>1,80<br>0,45  | cb<br>cb<br>cb       | 86.61.7<br>0.07.9<br>0.12.9<br>0.13.3<br>0.12.9<br>0.01.9<br>93.52.7   | 6 0.21<br>6 0.39<br>6 0.42<br>6 0.75<br>6 0.75<br>6 0.08   |  |
| 1519    | Label  | Sett Base Bid, Building A. Fis. Sett Base Bid, Building A. Fis  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ng, Sheet EI<br>ing, Office Type<br>ing, Office Type<br>ing, Office Type<br>, Sheet EI<br>c. Office Type A<br>2.00<br>20.00<br>2.00<br>5.00  | S1,235.5.<br>\$166.9<br>\$12.2<br>\$41.7<br>\$1.031.4   | \$91.913.9 \$1.022.4 \$1.796.2 \$1.966.2 \$1.966.2 \$1.760.3 \$1.740.3 \$1  | 1 2 2 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2  | 196,71<br>14,34<br>27,44<br>29,87<br>31,55<br>3,28<br>3,25<br>0,20<br>0,00<br>0,82<br>0,28<br>1,80<br>0,45<br>1,05  | cb<br>cb<br>cb       | 96.61.7<br>0.07.7<br>0.12.2<br>0.13.3<br>0.12.9<br>0.01.9<br>0.01.9  | 6 0.21<br>6 0.39<br>6 0.42<br>6 0.75<br>6 0.08<br>1 0028   |  |
| 3.09    | Label Label Label Label Label Label Label Label Label Delta Cook D | Sett Base Bid, Building A. Fid. Boach Rough 42 1/2-25 LOCKHUT 7 80X SUPPORTI-CIP ON 87 1/2 PVC MALE TERM 82 4/5 SE MUD RING 1/2" DR 1/4 TO BUILDING 1/4" DR 1/4 TO BUILDING 1/  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power  | ng, Sheet EI<br>ing, Office Type<br>ing, Office Type<br>ing, Office Type<br>, Sheet EI<br>c. Office Type A<br>2.00<br>20.00<br>2.00<br>5.00  | S1,235.5.<br>\$166.9<br>\$12.2<br>\$41.7<br>\$1.031.4   | \$91,913,9<br>\$1,022,4<br>\$1,790,2<br>\$1,963,0<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1,740,2<br>\$1 | 1 0.10 E 0.00 C 0.14 E 0 30.00 C 1 15.00 C 0.00 C  | 195,71<br>14,34<br>27,44<br>29,89<br>53,55<br>53,55<br>0,20<br>0,00<br>0,82<br>0,28<br>1,80<br>0,45<br>1,80<br>0,45<br>0,00   | cb<br>cb<br>cb       | 86.61.7<br>0.07.9<br>0.12.9<br>0.12.9<br>0.01.9<br>0.9.3.1<br>3.73.1   | 6 0.21<br>6 0.39<br>6 0.42;<br>6 0.75;<br>6 0.08;<br>1 5628  |  |
| 2       | Label Label Label Label  Label  Coss  J 43  D 39  D 77  B 82  D 256  D 256  D Coss   | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic<br>Boach, Sough<br>42 1/2 SS LOCKPUT<br>47 BOX SUPPORTI-CLIP ON<br>97 1/2 PIVC 40<br>55 1/2 PIVC 40<br>55 1/2 PIVC 40<br>12 4/5 BOX 1-1/2" DEP<br>35 4/5 SG MUD RDMG 1/2" OF<br>Third Denices/Pates<br>Eugs Terministon/Ground<br>Broach Wiles   | or I. Lightli<br>ser I. Lightli<br>ser I. Lightli<br>ser I. Lightli<br>ser I. Power<br>ser I. Power  | ng, Sheet EI<br>ing, Office Type<br>ing, Office Type<br>ing, Office Type<br>, Sheet EI<br>c. Office Type A<br>2.00<br>20.00<br>2.00<br>5.00  | S1,235.5.<br>\$166.9<br>\$12.2<br>\$41.7<br>\$1.031.4   | \$91.913.9 \$1.022.4 \$1.796.2 \$1.966.2 \$1.966.2 \$1.760.3 \$1.740.3 \$1  | 1 0.10 E 0.00 C 0.14 E 0 30.00 C 1 15.00 C 0.00 C  | 196,71<br>14,34<br>27,44<br>29,87<br>31,55<br>3,28<br>3,25<br>0,20<br>0,00<br>0,82<br>0,28<br>1,80<br>0,45<br>1,05  | cb<br>cb<br>cb       | 96.61.7<br>0.07.9<br>0.12.9<br>0.12.9<br>0.01.9<br>(9.33.1   | 6 0.21<br>6 0.38<br>6 0.42;<br>6 0.75;<br>6 0.08;<br>1 00:28;  |  |
| 1519    | Label  | Sett Base Bid, Buikling A. Fis.   | or I. Lightli<br>or I. Lightli<br>or I. Lightli<br>or I. Lightli<br>or I. Power<br>or I. Power   | ng. Sheet El<br>ng. Office Type<br>ng. Office Type<br>ng. Office Type<br>ng. Office Type A<br>2.00<br>20.00<br>2.00<br>2.00<br>3.00  | \$1,235.5:<br>\$1,66 Pt<br>\$12.2:<br>\$41.7:<br>\$1,614.4:<br>\$570.4:   | \$91.913.9 \$1.022.4 \$1.790.2 \$1.960.0 \$1.790.3 \$1.740.3 \$1  | 1 2 2 4 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 196.71<br>14.34<br>27.44<br>29.89<br>53.55<br>5.25<br>0.20<br>0.00<br>0.82<br>1.80<br>0.45<br>1.05<br>0.00<br>0.78  | cb<br>cb<br>cb       | 86.61.7<br>0.02.7<br>0.12.2<br>0.13.3<br>0.12.9<br>0.01.9<br>0.2.2.1<br>3.73.1<br>3.78.1<br>20.96.1                                    | 6 0.21<br>6 0.38<br>6 0.42<br>6 0.75<br>6 0.08<br>1 0028   |  |
| 2       | Label  | Sett Base Bid, Building A. Fid.   | or 1, Lighti<br>or 1, Lighti<br>or 1, Lighti<br>or 1, Power<br>or 1, Power<br>or 1, Power  | ng. Sheet El<br>ng. Office Type<br>ng. Office Type<br>ng. Office Type<br>ng. Office Type A<br>2.00<br>20.00<br>2.00<br>2.00<br>3.00  | \$1,235.5:<br>\$1,66 Pt<br>\$12.2:<br>\$41.7:<br>\$1,614.4:<br>\$570.4:   | \$91.913.9 \$1.022.4 \$1.790.2 \$1.960.0 \$1.790.3 \$1.740.3 \$1  | 1 2 2 4 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 196.71<br>14.34<br>27.44<br>29.89<br>53.55<br>5.25<br>0.20<br>0.00<br>0.82<br>1.80<br>0.45<br>1.05<br>0.00<br>0.78  | cb<br>cb<br>cb       | 96.61.7<br>0.07.9<br>0.12.9<br>0.12.9<br>0.01.9<br>(9.33.1   | 6 0.21<br>6 0.38<br>6 0.42<br>6 0.75<br>6 0.08<br>1 0628<br>1 0628   |  |
| 2       | Label  | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic<br>Bosch, Rough<br>47 1/2 PS LOCKPUT<br>47 80X SUPPORTI-CLIP ON<br>97 1/2 PVC 40<br>51/2 PVC 40<br>51/ | or I. Lighti<br>or I. Lighti<br>or I. Lighti<br>or I. Power<br>or I. Power<br>or I. Power<br>or I. Power   | ng. Sheet El<br>ng. Office Type<br>ng. Office Type<br>ng. Office Type<br>, Sheet El<br>. Office Type A<br>2.00<br>20.00<br>2.00<br>1.00  | \$1,235.5:<br>\$166.94<br>\$12.2:<br>\$41.7:<br>\$1,611.4<br>\$570.4  | \$91.913.9 \$1.922.4 \$1.792.2 \$1.962.0 \$1.962.0 \$1.74.0  | 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  | 196,71<br>14,34<br>27,44<br>29,89<br>51,55<br>52,55<br>0,20<br>0,00<br>0,45<br>1,80<br>0,45<br>1,00<br>0,45<br>0,00<br>0,75<br>0,75   | cb<br>cb<br>bb<br>bb | \$6.61.7<br>0.07.9<br>0.12.9<br>0.12.9<br>0.01.9<br>(9.33.1<br>3.73.1<br>3.73.1<br>2.78.1<br>2.09.0<br>0.01.9                          | 6 0.21<br>6 0.39<br>6 0.42;<br>6 0.75;<br>6 0.08;<br>1 0628  |  |
| 2       | Label  | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic<br>Bosech, Boogh<br>42 1/2 SS LOCKHUT<br>47 BOX SUPPORTI-CLP ON<br>47 1/2 PVC 44ALE TERM<br>32 4/5 SOX 4-1/2" DEP<br>35 4/5 SOX MUD RING 1/2" DE<br>Tim Denice/Pates<br>Lugs/Terministon/Ground<br>Bronch Wile<br>Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic   | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power<br>or 1. Power<br>or 1. Power<br>or 1. Power<br>or 1. Power<br>or 1. I An  | ng. Sheet El og Office Type ng. Office Type ng. Office Type ng. Office Type Sheet El Office Type A 2.00 2.00 2.00 2.00 3.00 3.00 y section   | \$1,295.5:<br>\$166.99<br>\$12.2;<br>\$41.7:<br>\$1,611.4<br>\$570.4  | \$91.913.8<br>\$1.922.4<br>\$1.792.2<br>\$1.962.0<br>\$1.962.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1.740.0<br>\$1 | 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  | 196,71<br>14,34<br>27,44<br>29,89<br>53,55<br>5,35<br>5,25<br>0,20<br>0,00<br>0,42<br>0,28<br>1,80<br>0,45<br>1,05<br>0,75<br>0,75<br>0,75  | coose                | 86.61.7<br>0.07.9<br>0.12.9<br>0.12.9<br>0.01.9<br>9.33.1<br>2.73.1<br>3.78.1<br>20.96.1<br>0.01.9<br>0.01.9                           | 6 0.2<br>6 0.39<br>6 0.42<br>6 0.75<br>6 0.08<br>1 0028<br>1 190<br>1 190<br>1 1412<br>6 0.14<br>9 0.15  |  |
| 2       | Label  | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic<br>Bonch Rough<br>22 1/2 SS LOCKNUT<br>47 BOX SUPPORTY-CUP ON<br>97 1/2 PVC 40<br>SS 1/2 PVC MALE TERM<br>32 4/S BOX 1-1/2" DEEP<br>32 4/S BOX 1-1/2" DEEP<br>Tim Denices/Pates<br>Lugs/Termination/Ground<br>& Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic   | or 1. Lighting 1. Lighting 1. Lighting 1. Lighting 1. Lighting 1. Power 1. Power 1. Power 1. Power 1. Power 1. Power 1. For 1. For 1. Vision 1. Vi | ng. Sheet El ng. Office Type ng. Office Type ng. Office Type ng. Office Type 2.00 2.00 2.00 2.00 3.00 y section  | \$1,235.5:<br>\$166 Pt \$122;<br>\$41.7:<br>\$1,631.4:<br>\$570.4:<br>can be  | \$91,913,8<br>\$1,022,4<br>\$1,790,2<br>\$1,960,0<br>\$1,290,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1,740,3<br>\$1 | 1 2 2 4 4 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 196,71<br>14,34<br>27,44<br>29,89<br>513,55<br>5,25<br>0,20<br>0,00<br>0,40<br>0,45<br>1,80<br>0,45<br>1,05<br>0,20<br>0,20<br>0,20<br>0,20<br>0,20<br>0,20<br>0,20<br>0  | Cos                  | 86.61.7<br>0.07.9<br>0.12.2<br>0.13.3<br>0.12.9<br>0.01.9<br>99.52.1<br>2.78.1<br>20.90.1<br>0.02.9<br>0.01.9<br>t Code<br>centages    | 9 0.21<br>9 0.32<br>9 0.42<br>9 0.75<br>9 0.75<br>9 0.75<br>9 0.75<br>9 0.75<br>9 0.75<br>9 0.12<br>9 0.15   |  |
| 2       | Label  | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic  | or 1. Lightinor 1. Lightinor 1. Lightinor 1. Lightinor 1. Lightinor 1. Power 1. Power 1. Power 1. Power 1. Power 1. Power 2. Lightinor 1. Visice on  | ng. Sheet El ng. Office Type ng. Office Type ng. Office Type A  2.70  2.70  2.90  2.90  2.90  2.90  2.90  7. | \$1,235.5;<br>\$166.96<br>\$12.2;<br>\$41.7;<br>\$1.631.4<br>\$570.4;<br>can be   | \$191.913.8 \$1,022.4 \$1,796.2 \$1,966.2 \$1,796.3 \$1,740.3 \$  | 1 0.10 E 0 0.00 C 0.14 E 0 30.00 C 1 15.00 C 0.00 C 0.14 E 0 30.00 C 1 15.00 C 0.00 C 0.14 E 0 30.00 C 1 15.00 C 0.00 C 0 | 196,71<br>14,34<br>27,44<br>29,89<br>53,55<br>5,38<br>5,25<br>0,20<br>0,00<br>6,25<br>1,80<br>6,45<br>1,05<br>0,02<br>0,75<br>1,037<br>10,37<br>10,37<br>10,37<br>10,37   | Cos                  | 86.61.7<br>0.07.9<br>0.12.9<br>0.12.9<br>0.01.9<br>9.33.1<br>2.73.1<br>3.78.1<br>20.96.1<br>0.01.9<br>0.01.9                           | 9 0.21<br>9 0.32<br>9 0.75<br>9 0.08<br>1 00.28<br>1 00.28<br>1 00.28<br>1 01.21<br>1 0.11<br>1 0.11<br>1 0.11<br>1 0.11<br>1 0.11   |  |
|         | Label  | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic<br>Book Sough<br>42 1/2 SS LOCKPUT<br>47 BOX SUPPORTI-CLIP ON<br>97 1/2 PIC 40<br>51 1/2 PIC 40<br>51 1/2 PIC 40<br>51 1/2 PIC 40<br>52 1/2 PIC 40<br>52 1/2 PIC 40<br>53 4/5 SGX 1-1/2" DEP<br>35 4/5 SGX 1-1/2" DEP<br>55 Tim Denices/Pates<br>5-11 Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power<br>or 1. Power<br>or 1. Power<br>or 1. Power<br>or 1. Power<br>or 1. Voice<br>or 1. Voice<br>or 1. Voice<br>or 1. Voice<br>or 2. Lighti<br>or 2. Lighti<br>or 2. Lighti<br>or 2. Lighti<br>or 2. Lighti  | ng. Sheet El ng. Office Type ng. Office Type ng. Office Type 2, Sheet El 2, Office Type A 2,00 20,00 2,00 2,00 3,00 4,00 4,00 4,00 5,00 6,00 6,00 6,00 6,00 6,00 6,00 6  | \$1,235.5<br>\$196.9<br>\$12.2<br>\$1,014.7<br>\$1,014.4<br>\$570.4<br>\$20.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,000.0<br>\$1,0 | \$91.913.8<br>\$1.022.4<br>\$1.796.2<br>\$1.962.0<br>\$1.962.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1 | 1 0 10 E 2 0 00 C 1 15 00 C 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | 196,71<br>14,34<br>27,44<br>29,89<br>51,55<br>52,55<br>0,20<br>0,00<br>0,45<br>1,80<br>0,45<br>1,00<br>0,45<br>1,00<br>0,75<br>0,75<br>1,00<br>0,75<br>1,00<br>1,00<br>1,00<br>1,00<br>1,00<br>1,00<br>1,00<br>1,0  | Cos percethat        | 86.61.7<br>0.07.9<br>0.12.2<br>0.13.3<br>0.12.9<br>0.01.9<br>99.52.1<br>2.78.1<br>20.90.1<br>0.02.9<br>0.01.9<br>t Code<br>centages    | 6 0.21<br>6 0.35<br>6 0.42;<br>6 0.75;<br>6 0.08;<br>1 00.28;<br>1 00.28;<br>1 0.15;<br>6 0.15;<br>0.15;<br>0.15;  |  |
|         | Label  | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic<br>Booch Sough<br>42 1/2 SS LOCKNUT<br>47 BOX SUPPORTI-CLIP ON<br>97 1/2 PVC MALL FERM<br>32 4/5 SOX LALZ? DEEP<br>35 4/5 SOX MALL P. PORTI<br>32 4/5 SOX LALZ? DEEP<br>35 4/5 SOX MALL P. PORTI<br>5 ELIGATERINA SOUGH<br>5 Booch Wile<br>Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic  | or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Lighti<br>or 1. Power<br>or 1. Power<br>or 1. Power<br>or 1. Power<br>or 1. Lighti<br>or 1. Lighti<br>or 2. Lighti   | ng. Sheet El og Office Type ng. Office Type ng. Office Type A 2.00 2.00 2.00 2.00 2.00 2.00 3.00 2.00 3.00 3   | \$1,235.5:<br>\$166.PE<br>\$12,27.5:<br>\$161.FE<br>\$570.4:<br>\$570.4:  | \$91,913,8<br>\$1,022,4<br>\$1,792,2<br>\$1,963,0<br>\$1,740,3<br>\$1,740,3<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1,740,5<br>\$1 | 1 010 t 0 000 c 4 110 c 0 30.00 c 1 15.00 c 0 2 2 2 2 2 1 1 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 196,71<br>14,34<br>27,44<br>29,89<br>53,55<br>5,38<br>5,25<br>0,20<br>0,00<br>0,45<br>1,60<br>0,45<br>1,60<br>0,45<br>1,60<br>0,45<br>1,60<br>0,45<br>1,60<br>0,45<br>1,60<br>0,45<br>1,60<br>0,45<br>1,60<br>0,45<br>1,60<br>0,45<br>1,60<br>0,70<br>0,70<br>0,70<br>0,70<br>0,70<br>0,70<br>0,70<br>0 | Cos percethat        | 86.61.2<br>0.02.9<br>0.13.3<br>0.12.9<br>0.01.9<br>52.22.1<br>3.72.1<br>2.04.0<br>0.02.9<br>0.03.9<br>t Code<br>centages<br>make up th | 9 0.21<br>6 0.32<br>6 0.42<br>6 0.75<br>6 0.08<br>1 0028<br>1 19.0<br>1 19.0 |  |
| 2       | Label  | Sett Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic<br>Book Sough<br>42 1/2 SS LOCKPUT<br>47 BOX SUPPORTI-CLIP ON<br>97 1/2 PIC 40<br>51 1/2 PIC 40<br>51 1/2 PIC 40<br>51 1/2 PIC 40<br>52 1/2 PIC 40<br>52 1/2 PIC 40<br>53 4/5 SGX 1-1/2" DEP<br>35 4/5 SGX 1-1/2" DEP<br>55 Tim Denices/Pates<br>5-11 Base Bid, Building A. Pic<br>Sett Base Bid, Building A. Pic  | or 1. Lighting 1. Lighting 1. Lighting 1. Lighting 1. Lighting 1. Power 1. Power 1. Power 1. Power 1. Power 1. Lighting 1. Lighting 1. Lighting 1. Lighting 2. Lighting 2. Lighting 2. Lighting 2. Lighting 2. Lighting 2. Power 3. Lighting 3. Lighting 3. Lighting  | ng. Sheet El ng. Office Type ng. Office Type ng. Office Type A 2-00 8-00 2-00 2-00 3-00 3-00 y section (Data, Office Type A (Data, Office Type ng. Office Type A (Data, Office Type ng. Office Ng | \$1,235.5:<br>\$166 PC<br>\$12.2:<br>\$41.7:<br>\$1.031.4:<br>\$570.4:<br>Can be  | \$91.913.8<br>\$1.022.4<br>\$1.796.2<br>\$1.962.0<br>\$1.962.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1.749.0<br>\$1 | 1 0 10 E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | 196,71<br>14,34<br>27,44<br>29,89<br>51,55<br>52,55<br>0,20<br>0,00<br>0,45<br>1,80<br>0,45<br>1,00<br>0,45<br>1,00<br>0,75<br>0,75<br>1,00<br>0,75<br>1,00<br>1,00<br>1,00<br>1,00<br>1,00<br>1,00<br>1,00<br>1,0  | Cos percethat        | 86.61.2<br>0.02.9<br>0.13.3<br>0.12.9<br>0.01.9<br>52.22.1<br>3.72.1<br>2.04.0<br>0.02.9<br>0.03.9<br>t Code<br>centages<br>make up th | 6 0.2<br>6 0.39<br>6 0.42<br>6 0.73<br>6 0.08<br>1 06.28<br>1 06.28   |  |

\$293.57

Label Set; Base Bid, Building A, Floor 2, Power, Office Type B

Labels

**Collapsed** 

0.12%

0.02 %



### **Collapsed Cost Codes**

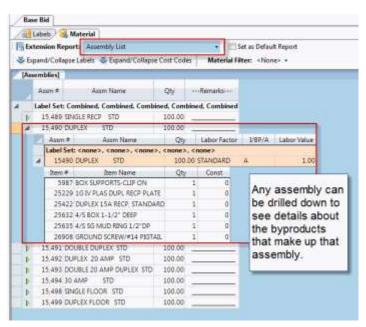
| Base   | Bid   |  |               |            |                  |            |         |            |            |         |       |                  |                  |                   |
|--------|---|--|---------------|------------|------------------|------------|---------|------------|------------|---------|-------|------------------|------------------|-------------------|
| ad L   | abels Material  |  |               |            |                  |            |         |            |            |         |       |                  |                  |                   |
| - fact | ternion Report: Idit Pri                                      | re 1 Bid Labor by 1  | Cost Code     | 191        | Set on Defer     | ult Neptor |         |            |            |         | Mat   | orial Filter: «I | None*            | - Extended Pr     |
| \$-6a  | and/Collapse Labels 🕏   | Emand/Collapse C   | Cent Coden    |            |                  |            |         |            |            |         |       |                  |                  |                   |
| Ilte   | ms and ByProducts[  |  |               |            | - I THE STATE OF |            |         | 12.11      |            |         | -1-1  |                  |                  | tara a senting a  |
| SVAU   |   | bon Name   | - Qty         | Book Price | U NA             | g1 U       | Price I | U          | EntPrice 1 | Bid Utr | U     | Bid Lity Est     | % of Ext Price 3 | % of Bid Liby Bit |
|        | Label Set: Base Bid.  | Building A. Floor 1  | l, Power, She | et El      |                  |            |         |            | 545,29     |         |       | LAI              | 141.5            | 2,68.9            |
| 1      | CCode: Branch Rough   | H:   |               |            |                  |            |         |            | \$20.00    |         |       | 0.32             | 67,08.5          | 26.84 %           |
| 1      | CCode: Hongen/And   | CCode Hongen/Anchon  |               |            |                  |            |         |            | \$2,50     |         |       | 0.06             | 2.95%            | 4,21.5            |
| 10     | CCode: Trim Devices/Plates                                    |  |               |            |                  |            |         |            | 222.24     |         |       | 6.72             | 24,39.5          | 20.53.3           |
| 16     | CCode Luga/Termination/Ground                                 |  |               |            |                  |            |         |            | \$2.22     |         |       | 0.12             | 7,42.5           | 8.42.5            |
|        | Label Set: Alt. 1 - Add, Building A, Floor 1, Power, Sheet E1 |  |               |            |                  |            |         | \$1,185.98 |            |         | 49,00 | 89.9 %           | 92,32 9          |                   |
| 1      | CCode: Branch Pough   | CCode: Branch Rough  |               |            |                  |            |         |            | \$806.05   |         |       | 15.00            | £7.96.5          | 20.62 1           |
| 1      | CCode: Hangers/And  | CCode Hangers/Anchors  |               |            |                  |            |         |            | \$90.17    |         |       | 3.00             | 7.6%             | 6.223             |
| 1      | CCode: Trim Devices/  | CCode: Trim Devices/Plates                                   |               |            |                  |            |         |            | \$121.01   |         |       | 25.00            | 10.2%            | 37.02 5           |
| 1      | CCode: Luga/Termina   | CCode: Luga/Termination/Ground                               |               |            |                  |            |         |            | \$168.76   |         |       | 6.00             | 1423.5           | 12.24             |
|        | Label Set: Alt 2 - Ad   | Label Set: Alt 2 - Add, Building A. Floor 1, Power, Sheet EI |               |            |                  |            |         |            | \$87.92    |         |       | 2.65             | 5,66.%           | 4.99 9            |
| 10     | CCode: Branch Rough   | CCode: Branch Rough  |               |            |                  |            |         |            | \$57.62    |         |       | 2.54             | 62,62.5          | \$7.86.5          |
| p      | CCode: Hangen/And   | CCode: Hangers/Archora                                       |               |            |                  |            |         |            | \$2.16     |         |       | 0.07             | 2,46.5           | 2,723             |
| 1      | CCode: Straps   | CCode: Straps  |               |            |                  |            |         |            | 12.26      |         |       | 6.15             | 2,68 %           | 5.75              |
| 1      | CCode: Trim Devices/  | CCode: Trim Devices/Plotes                                   |               |            |                  |            |         |            | \$5.40     |         |       | 0.42             | 6.14 %           | 15.78 3           |
| 10     | CCode: Luga/Termina   | tion/Ground  |               |            |                  |            |         |            | \$2.30     |         |       | 0.03             |                  | 1.25 5            |
| 1.     | CCode: Branch Wire  |  |               |            |                  |            |         |            | \$17.64    |         |       | 0.36             | 20.06 %          | 14.45             |
|        | - 77  |  |               |            |                  |            |         |            | \$1,319.20 |         |       | 53.07            |                  |                   |

| 100     | els Material                               | 25V         | 1000000      |                   |            |             | 1100      | Service State   | 0.000            | I Washington                   |
|---------|--|-------------|--------------|-------------------|------------|-------------|-----------|---|------------------|--------------------------------|
| 1053400 | raion Report: Edit Poce 3 Bid Lebor by Cod |             | * 12 Set     | ss Default Report |            |             | Mat       | erial filter: </th <th>Noner</th> <th><ul> <li>Extended P</li> </ul></th> | Noner            | <ul> <li>Extended P</li> </ul> |
| & Espan | nd/Collapse Labels 🕏 Expand/Collapse Cost  | Codes       |              |                   |            |             |           |   |                  |                                |
| Iltem   | s and ByProducts[                          |             |              |                   |            |             |           |   |                  |                                |
|         | Item# Item hisms                           | Q6/         |              | P/Adi U           | Price 1    | Fit Price 1 | Sid Lbr U |   | % of Est Price 1 |                                |
| 4       | Label Set: Combined, Combined, Combine     | ed Combin   | ed. Combined |                   |            | \$1,319,20  |           | 53.07   |                  |                                |
| 4       | CCode: Brench Rough                        | 1892.88     |              | 17.06             |            | 12.14       |           |   |                  |                                |
|         |  | 30.36       | \$82.43 C    | 1.00              | \$82,43 C  | \$25,03     | 2.00 €    | 0.61  |                  |                                |
|         | 1.002 3/4 9MT                              | 9.72        | \$166.31 C   | 0.60              | \$99.79 C  | \$9.70      | 3.00 €    | 5.29  |                  |                                |
| ,       | 1,034 1/2 BMT CONN D/5                     | 3.01        | 161.40 C     | 0.60              | \$36.84 C  | \$1.11      | 4.00 €    | 0.12  |                  |                                |
| 1       | 1,035 3/4 EMT CONN D/S                     | 0.97        | \$101.40 C   | 0.60              | \$50.84 C  | \$0.59      | 5.00 C    | 0.05  |                  |                                |
| ,       | 1,131 3/4 BMT COUP D/S                     | 3.00        | \$106.98 C   | 0.60              | \$64.19 C  | \$1.93      | 3.50 €    | 0.10  |                  |                                |
| ,       | 13.109 4/5 BOX 1-1/2" DEEP                 | 105.40      | \$865.02 €   | 0.60              | \$519.01 C | \$552.23    | 10,00 €   | 30.66   |                  |                                |
| ,       | 15,112 4/5 5G MI/D RING 1/2*DP             | 102.46      | \$478.39 C   | 0.60              | \$287.03 C | \$294.10    | 5.00 €    | 5.12  |                  |                                |
| ,       | 15,119 4/5 2G MUD RING 1/2*0P              | 2.00        | \$684.72 C   | 0.60              | \$410.83 C | \$8.22      | 5.00 C    | 0.10  |                  |                                |
| 4       | CCode: Hungers/Anchors                     |             |              |                   |            | \$94.14     |           | 2.13  | 7.14%            | 5.9                            |
|         | 3.880 BOX SEPPORTS-CLIF ON                 | 104.40      | \$150.29 C   | 0.60              | \$90.17 C  | 594.14      | 3.00 €    | 3.13  |                  |                                |
| 4       | CCode Straps                               | ade: Straps |              |                   |            | \$2.25      |           | 0.25  | 6285             | 0.29                           |
| 1       | 1,249 1/2 BMT 1 HOLE STP/STL               | 3.12        | \$68.46 C    | 0.60              | \$41.08 C  | \$1.28      | 3.00 €    | 0.09  |                  |                                |
|         | 1,250 3/4 BMT 1 HGLE STR/STL               | 1.96        | 991.51 C     | 0.60              | \$54.91.C  | \$1.08      | 3.00 €    | 9.06  |                  |                                |
| 2       | CCode: Trim Devices/Plates                 |             |              |                   |            | \$177.54    |           | 20.14   | 10.43 %          | 49.25                          |
| ,       | 14.741 1G IV 2.15" PLAS POWER PLATE        | 1.46        | \$408.67 C   | 0.60              | \$245.20 C | \$3.63      | 5.00 €    | 0.07  |                  |                                |
| ,       | 14 743 1G IV PLAS DUPL RECP PLATE          | 100.00      | 951.39 €     | 0.60              | \$30.83 C  | \$30.83     | 5.00 €    | 5.00  |                  |                                |
|         | 14 745 2G Iv 2.15" PLAS POWER PLATE        | 2.00        | \$417.64 C   | 0.60              | 5250.58 C  | \$5.01      | 6.00 €    | 0.12  |                  |                                |
| -       | 14 750 1G TV PLAS TELEPHONE PLATE          | 0.96        | \$75.18 C    | 0.60              | \$45.11 C  | \$0.43      | 5.00 €    | 0.05  |                  |                                |
|         | 14 914 DUPLEX 13A RECP STANDARD            | 101.48      | \$150.29 C   | 0.60              | \$90.17 C  | 191.51      | 30.00 C   | 20.30   |                  |                                |
|         | 14 917 50 AMP RECP STANDARD                | 2.00        | \$510.46 C   | 0.60              | \$306.28 C | \$6.13      | 30.00 €   | 0.60  |                  |                                |
| 4       | CCode: Lugs/Termination/Growns             | - 200       |              |                   | -45874     | \$174.62    | 170000    | 6.21  |                  | 11.7                           |
| 1       | 16.207 GROUND SCREWGWL4 PIETAIL            | 103.46      | \$281.26 C   | 0.60              | \$166.76 C | \$174.63    | 6.00 C    | 0.21  |                  |                                |
| 4       | CCode: Brench Wire                         | 449146      | 344444       | 330               |            | \$17.64     |           | 0.26  |                  | 0.72                           |
| 13      | 36 12 THHN CU SOUD                         | 95.70       | \$307.14 M   | 0.60              | \$184.28 M |             | 4:00 M    | 0.38  |                  | -                              |
|         |  | 23,10       |              | 7.00              | 222420 10  | \$1,319,20  | 3.00      | 53.07   |                  |                                |

Extension (contd.) Default view with labels combined

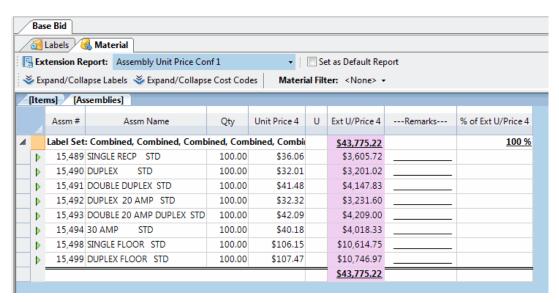


#### **Assemblies in Extension**

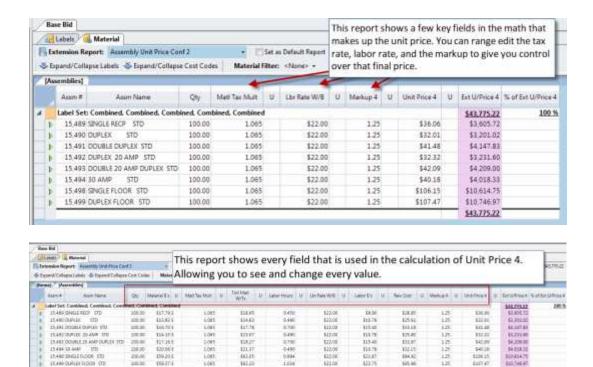


#### **Assembly Unit Price Reports**

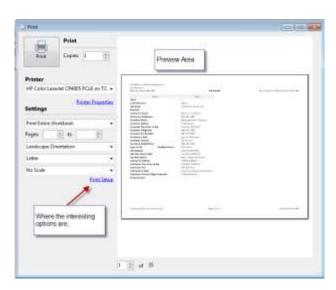
All reports are customizable to contain whatever fields you want to see



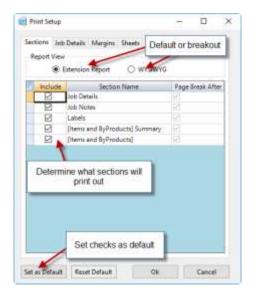




## **Extension (contd.) Print Options**







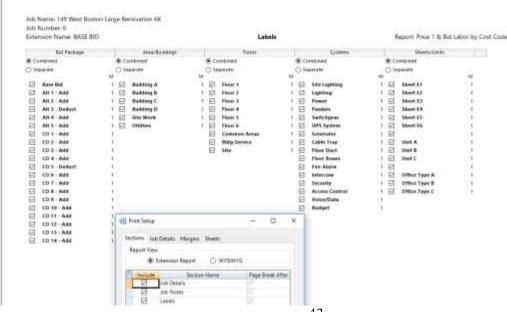
#### W.Y.S.I.W.Y.G. What you see is what you get.

If you clicked on an arrow and expanded a section of two, but left the rest collapsed, it will print that way instead of the default, which is all collapsed.

Set as default option is by job and extension report.

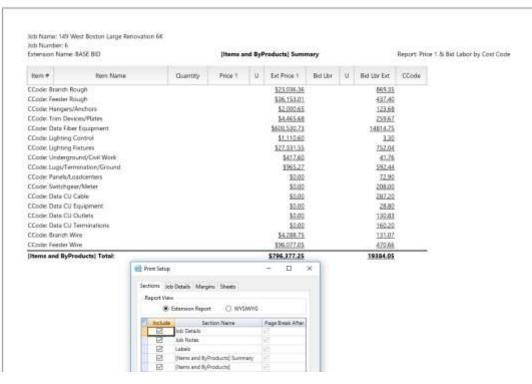
<u>NOTE:</u> Make any needed changes to your Template Job Extension Print Preview and paste the Template Jobs Extension Reports to make the changes global.

<u>Labels Section</u>



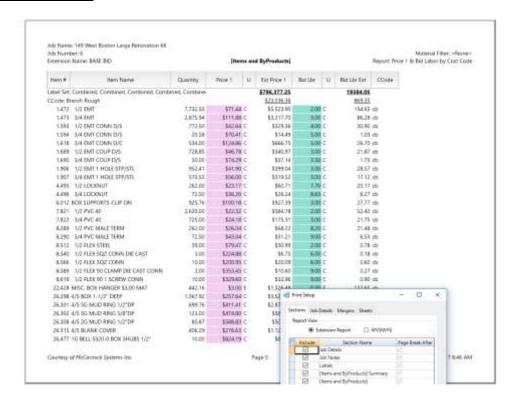


#### **Items and ByProduct Summary**



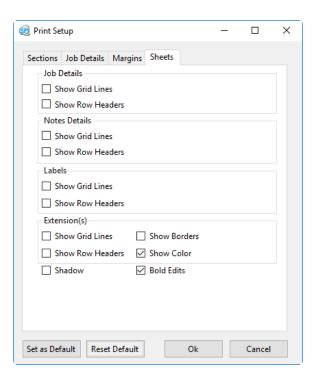


### Extension (contd.) Items and ByProduct Section





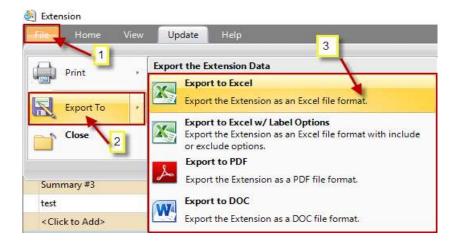
#### **Appearance options**



#### **Exporting**

- 1. Select file
- 2. Export to
- 3. There will be a selection to export the extension to Excel, PDF, or Word.





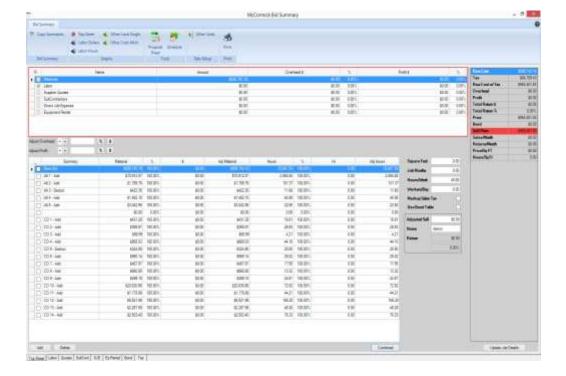
#### STEP 5 – BID SUMMARY



The bid summary summarizes all of the expenses required to complete a job. Bid summaries receive the total material dollars and labor hours from either the extension process or by manually entering values into the Adj. Material and Adj. Hours columns of the bottom left summary selection area.

#### **Bid Summary Ribbon**

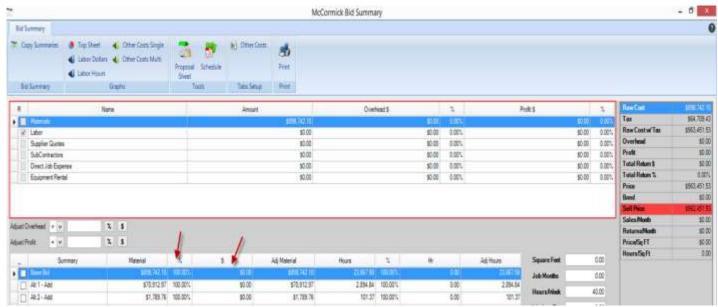
Easily access bid summary features and customizable options through the Bid Summary Ribbon.





#### **Customizing the Bid Summary**

- 1. What can a user view on the top sheet of bid summary and how can it be customized? Answer: All Job costs, overhead, profit and tracking markers can be viewed. This can be viewed for many summaries at the same time, even combining totals! A user can customize the top sheet by adding new columns to material price and labor columns. An easier review of extension reports can be added along with new cost tabs.
  - a. Adding adjusted material price and adjusted hour's column.
    - i. Adjusted Material lets you enter a value to bring the total material dollars to a desired level.



There are 3 ways to adjust material price, enter a new dollar amount in Adj. Material, adjust by percentage (%), or by dollars (\$).

ii. **Adjusted Hours** lets you enter a value to bring the total hours to a desired level. There are 3 ways to adjust total hours; enter total amount of hours in Adj. Hour, percentage (%), or dollars (\$).

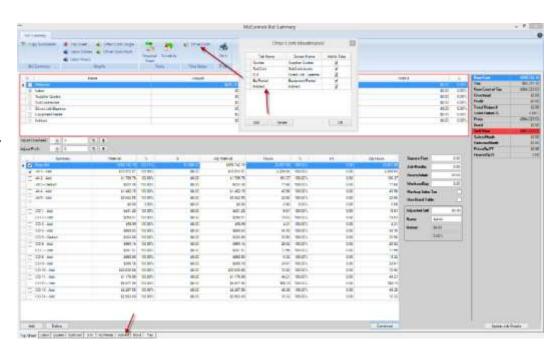


### **Bid Summary (contd.)**

The Button is to tabs per on your

can be summary located

Ribbon).

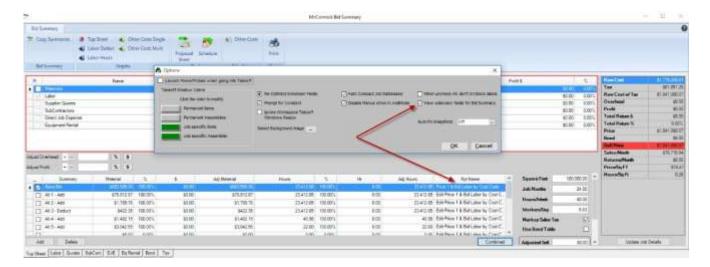


Adding Tabs
easily accessible
quickly add new
individual job or
Template Job.
Extension reports
viewed in bid
(options buttonunder
Configuration

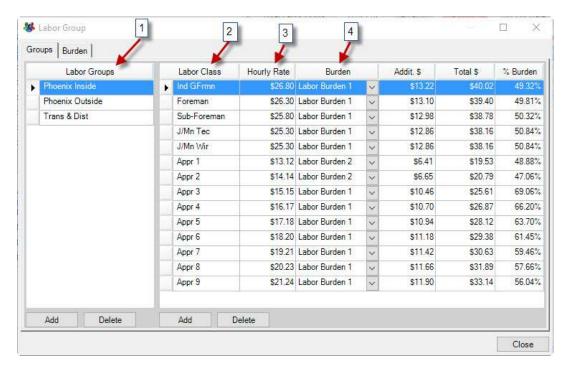
• In options, place check in View Extension Fields for Bid Summary.



• View name of saved report next to each of the bid summary fields.



#### **Setting Up/Explaining Labor Groups**



**Labor Groups** (1) can be the Company's Labor Group, a Davis Bacon Labor Group or a Local Union. **Labor Class** (2) can be as shown or even an Employee. The **Hourly Rate** (3) is the rate paid without **Burden** (4). And a Type of Burden may be selected from the Burden page.

#### **Labor Burden**

Display only burden that is being used for top check boxes



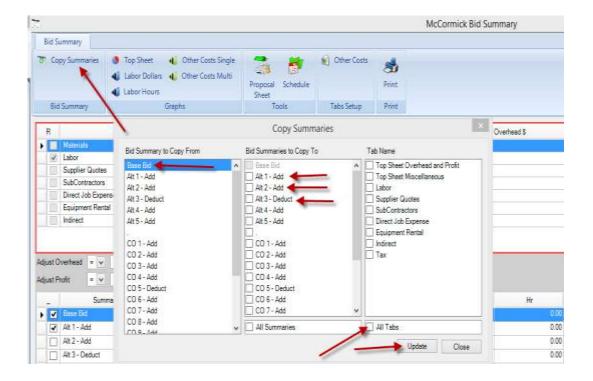
- If no value is entered into the burden on right side of screen, then the top screen cleans itself up and removes anything with a zero or is empty
- Feature cleans up top of the screen saving user from scrolling through many burdens.



#### **Bid Summary (contd.)**

#### **Copy Summaries**

- 1. Copy labor, quotes, subs, DJE, equip rental and tax from one summary to many other summaries
- 2. Speeds up user Complete only 1 summary and use the same options for all summaries
- **3.** It usually is a good procedure to enter the Labor, Tax, Overhead and Profit before copying Summaries. Then the Other Costs (Quotes, Sub Contractors, Direct Job Expenses 'DJE, Equipment Rental, etc.) may be added to each of the Summaries.





#### **Creating/Editing Bond/Tax**

#### **Bond Table**



The Bond Table may be selected using the **Bond** Tab (5). The **From** amounts (1) will change based on **To** amounts (2). The **Bond Value** (3) may be either dollars or percent based on the **Format** (4) selected. Bonding values may be **added** (6) or **deleted** (7). Bonding may be selected by checking the Use Bond Table box on the Top Sheet.

#### **Tax Table**



The Tax Table may be accessed using the **Tax** Tab (5). Materials, Labor, and Other Costs (1) may be taxed. Other Costs may be taxed by checking the Tax check box for that cost. If the Tax check box is checked and the Other Cost has a value, that Taxable amount will be shown in the **Taxable Amount** column (2). The tax rate is shown as a percentage in the **% Tax Rate Column** (3) and the Tax dollars are shown in the **Tax\$** column (4).

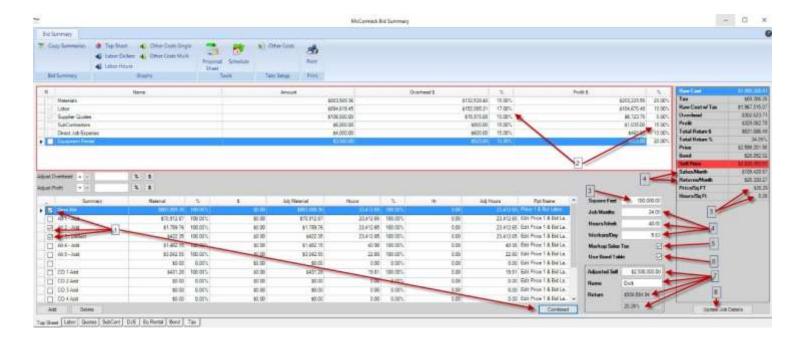


### **Bid Summary (contd.) Quotes**



The check boxes (1) in the **R** (**Reminder**) column may be checked per Job or in the Template Job and Pasted. They are used as a reminder that a cost <u>may be</u> needed and are unchecked when the final prices are added. When a box is checked the red reminder appears on the Top Sheet and that Other Cost's Reminder box is also checked on the Top Sheet. The **Name** of the Other Cost (2) and the **Supplier** for that Other Cost (3) is shown. If an Other Cost is taxed the **Tax** check box (4) should be checked for that Other Cost. The Tax check boxes may be checked in the Template Job and Pasted to the other Jobs. The **Unit** Price (5) may be added for each Other Cost and the **Multiplier** (6) may be used to either select that other cost or as a multiplier of that Unit Price (i.e. feet of saw cutting or trench, etc.). The Total **Dollars** (7) for an Other Cost is shown. The **Total Dollars** (8) for all of that other Cost is shown.





Bid Summaries may be combined by checking the **boxes** (1) and clicking the **Combined** button. Different Overhead and **Profit** values (2) may be used for Material, Labor, and the Other Costs. Adding **square feet** (3) to a Summary gives a **Price per Square Feet** (3) and **Labor Hours per Square Feet** (3). Adding **Job Months** (4) and based on **Hours per Week** (4) will calculate **Worker per Day** (4) and **Sales per Month** (4), and **Return per Month** (4). Checking the **Markup Sales Tax** (5) box takes the average profit percentage \* the Tax and adds that value to the Profit. Checking the **Use Bond Table** (6) box will add the Bond based on the Bond Table. Adding a Value to the **Adjusted Sell** (7) allows entering the name of the person adjusting the price (7), and shows the **Return** Dollars (7) and **Return** Percentage (7) based on the Raw Cost with Tax. If Details from the Bid Summary were added to the Job Details, they may be updated by click the **Update Job Details** (8) button and following the instructions.

### **Bid Summary (contd.) Printing**

There are two different ways to print the Bid Summary.

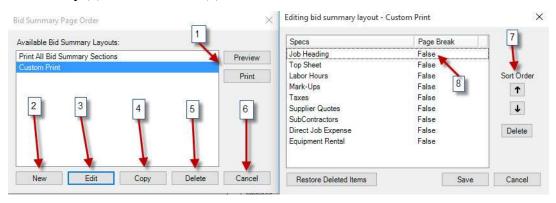


- 1. Select a single Bid Summary without checking the box at the beginning of the line and print. You will get a report of just that Bid Summary.
- 2. Select multiple Bid Summaries by checking the boxes at the beginning of the lines; select the **Combined** button in the lower left corner of the Bid Summary Top Sheet. This will immediately modify the Top Sheet to show all the totals for the Bid Summaries you selected as a combined amount. When you print, you will get ONE report



with the comb ined infor mati on.

Select the **Summary** (1) and select **Print** (2).

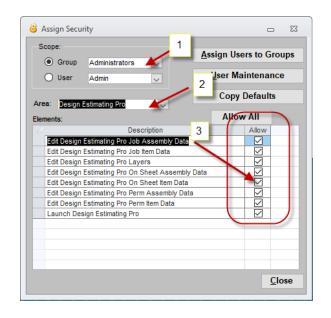


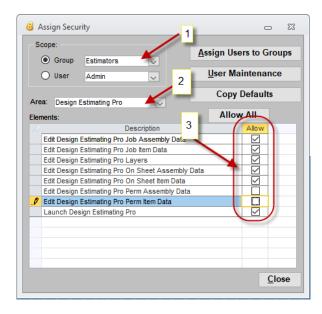
Bid Summaries may be **Previewed** or **Printed** (1). A **New** Bid Summary Layout may be created (2) or an existing Layout may be **Copied** (4). Existing Bid Summary Layouts may be **Edited** (3) or **Deleted** (5). Page Breaks may be added by selecting True under **Page Break** (8). The Bid Summary Spec order may be changed by selecting a Spec and using the Sort Order arrows (7). Click cancel (6) if needed.

### **SECTION II Design Estimating Pro**



#### **Design Estimating Pro Basics** Security



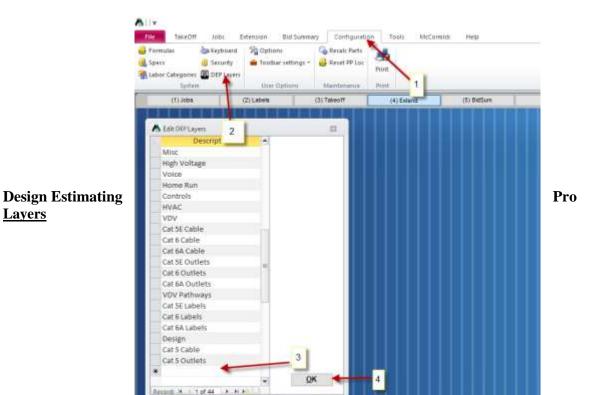


Security for Design Estimating Pro is similar to security in the main app. The windows above show security settings for both the Group Administrator and Estimator.

1. Choose the appropriate Group

Layers

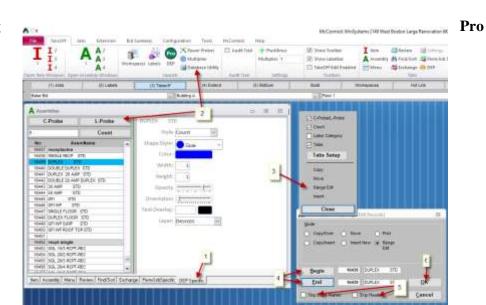
- 2. Choose Design Estimating Pro in Area
- 3. Choose the desired functions. Administrator should always have access to everything. Note that the Estimator isn't allowed to edit the Design Estimating Pro specification in either of the permanent databases.





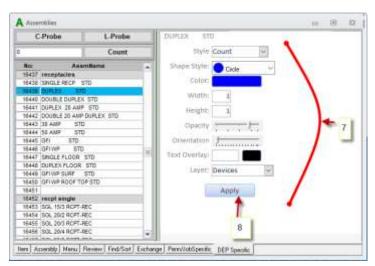
- $\textbf{1.} \quad \text{To add or modify Layers, click on the } \textbf{Configuration Tab}.$
- 2. Click Design Estimating Pro Layers icon on the ribbon.
- **3.** Layers may be added in the blank line with the \* and another blank line with an \* will be added or the existing Layers may be changed.
- **4.** When done click **OK**.

# Design Estimating Range Edit





- 1. Click on the Design Estimating Pro Specific tab. Beginning Item or Assembly should be marked.
- 2. Click Database Utility Icon or right click the (C-Probe, L-Probe, Count) area to bring up the
- **3.** Brings up the Database Utility popup window.
- **4.** Select the beginning and end of the range to be edited.
- 5. If your range crosses a header or blank line check the Skip Blank Names and/or Skip Headers.
- **6.** If the range selected is correct, click OK button. To cancel, click Cancel button.
- 7. Modify the Style, Shape or Line, Width, etc. to match your needs.
- **8.** Then **Click** the Apply button



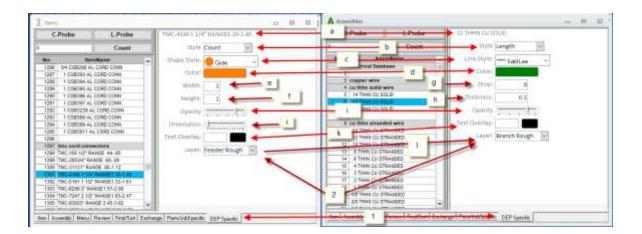
**Design Estimating Pro (contd.) Item and Assembly Databases** 

<u>NOTE</u>: It is highly recommend that a new user modify the Job Items and Assemblies in their Sample Job.



- 1. Choose the **Item** database, or
- 2. Choose the **Assembly** database





The Item and Assembly databases, both permanent and temporary, have a Design Estimating Pro Specific tab. They will appear as described below:

- 1. This is the tab as it appears in both the Item and Assembly windows. It is the same for both the permanent and temporary databases.
- 2. The specifics that can be edited for every item and/or assembly, as allowed by Security, include:
  - a. Name This will reflect the Item or Assembly name and can be modified in Database review tab.
  - b. Style Input can be None/Count/Length
  - c. <u>Shape Style (Count)/Line Style (Length)</u> Choose the desired style from the pull-down. Shape Style (Count) has many selections to choose from. This allows enough options to designate different device types (i.e. switches vs. receptacles) and/or fixtures (i.e. fluorescent vs. incandescent). Line Style (Length) offers three options; Solid Line, Dashed Line, or Dotted Line.
  - d. <u>Color</u> Combine color with the above options and there are numerous variations.
  - e. Width (Count) This is half of the size determination the icon will take when it appears on the drawing. (Too small and it won't be seen, too large will cover up too much.) The default of 12 should do the job, but it can be changed as shown here.
  - f. <u>Height (Count)</u> This is the other half of determining the icon size. It usually matches the width, with a default of 12, or can be changed as shown here.
  - g. <u>Drop (Length)</u> This is the desired drop added to any length taken off. The default in the database is 8 feet, as shown circled here.
  - h. <u>Thickness (Length)</u> This is the thickness of the line as it appears on the drawing. Two different thicknesses allows you to vary Branch and Feeder if needed.
  - i. Opacity This is how transparent the icon/line will appear.
  - j. <u>Orientation (Count)</u> This is how the icon will orient on the drawing. A triangle will have a horizontal bottom line with the tip pointing to the top of the page. Changing the orientation will point the tip of the

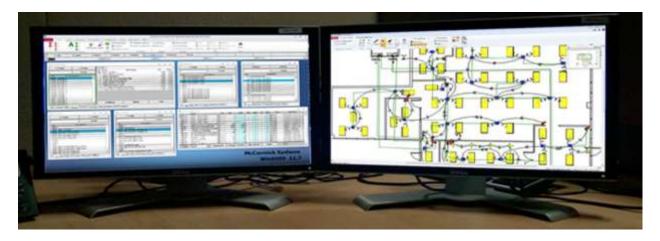


- triangle in a different direction based on degrees, i.e. 180 degrees will change the tip to point to the bottom of the page.
- k. <u>Text Overlay</u> This is a two part process. First is a field where text is entered. Icons will be somewhat small and the text should fit, so use of abbreviations may need to be used. Second is the color of the overlay text, which should be different than the icon color. The default black may be best choice in most cases.
- 1. <u>Layer</u> This is what layer the icon will appear in. The Assembly window shows Branch Rough. Other choices are None and Devices as shown in Item window. This allows viewing the drawing with different layers. The list is quite extensive and is hard coded by programming.

<u>NOTE</u>: These fields can be edited in the database using the Range Edit function the same way as the Main App.



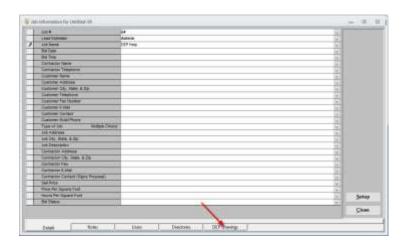
# Design Estimating Pro (contd.) <u>Using Multiple Monitors</u>



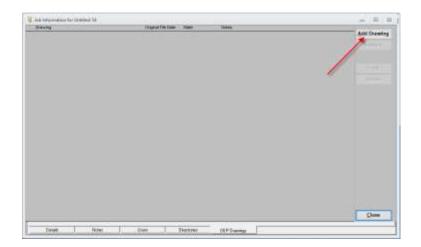
A dual monitor setup is ideal for Design Estimating Pro, as it allows for ease of use with existing item/assembly window layouts.



### **Drawings**



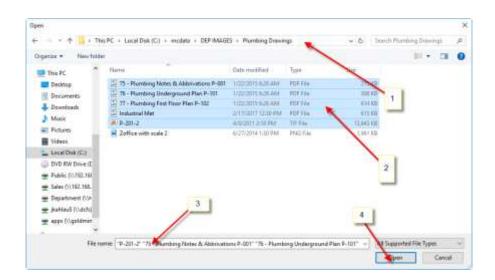
Click the Drawings tab on the initial Job Information page to bring in drawings.



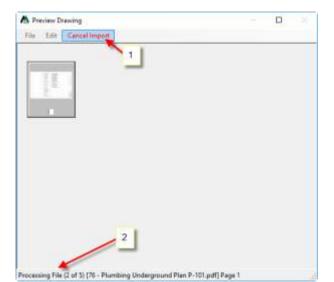
To import a drawing, click on Add Drawing.

Design Estimating Pro (contd.) Add Drawings



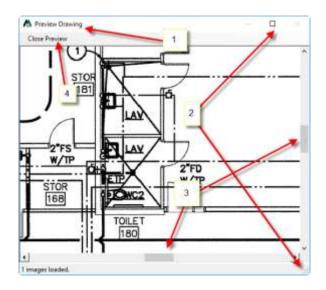


- **1.** Browse to the location of the drawings.
- 2. Choose only the drawings needed by using either **SHIFT** to grab a block of multiple drawings, or **CTRL** to grab specific drawings.
- 3. File name reflects the drawing chosen.
- 4. When all desired drawings are chosen, click Open.



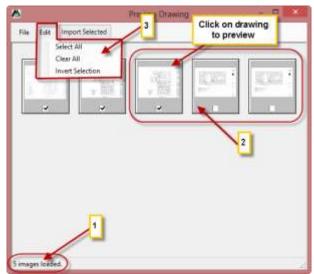


- 1. As the drawings are being imported, Cancel Import is visible
- 2. The number of pages being processed are also in the dialog box



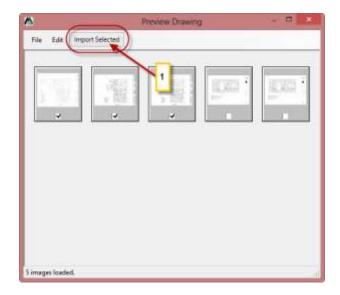
- 1. Once the **drawings** are loaded, click any image to preview that drawing.
- **2.** Enlarge the preview as needed by rolling the wheel on the mouse.
- 3. Because there is no pan capability, use the Scroll Bars to look closer at the drawing.
- **4.** Click **Close Preview** to get back to MAIN Preview Drawing window.

# Design Estimating Pro (contd.) Add Drawings (contd.)



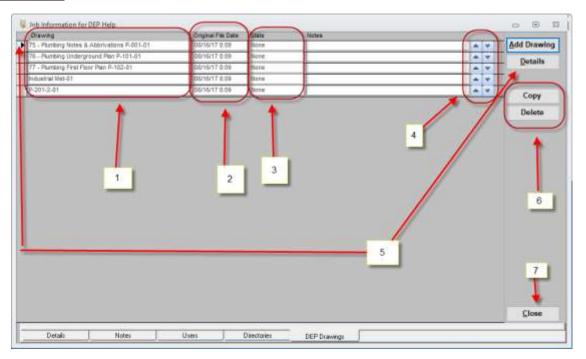


- 1. This screen shows the total number of drawings loaded.
- 2. Select drawings manually by clicking the check box on each one, or
- 3. Choose **Edit** and **Select All**. **Clear all** will deselect all drawings and **Invert Selection** will reverse the selection of the drawings, meaning those checked will become unchecked and those unchecked will become checked.



1. Once the drawings are selected, the user will get a new button for Import Selected. Click it.

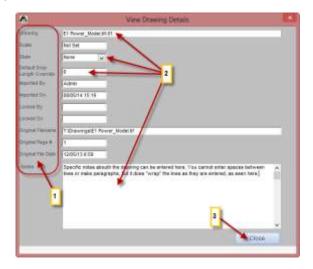
#### **Drawing Details**





- 1. **Drawings** are now listed. In the case of selecting a set of drawings, each one is individually numbered.
- 2. Note the **original file date** and time transferred are shown.
- **3.** The **State** indicates if the drawing has had takeoff done in Design Estimating Pro. In this case, none has been done yet.
- **4.** Drawings may be moved up or down in the list by clicking the **up or down arrow** for that drawing.
- **5.** View details for a drawing by clicking in the row selector and **Details** button.
- **6. Copy or Delete** chosen drawings with the notated buttons.
- 7. When done with this window, click **Close** to continue the initial job process.

# Design Estimating Pro (contd.) Drawing Details (contd.)



#### 1. Details list.

a. Drawing – The name when originally imported. Name can be edited here.



- b. Scale Sets when the drawing is opened.
- c. State There are five (5) states and can be chosen/edited here:
  - i. None No state assigned (default).
  - ii. No Takeoff No takeoff has been performed yet.
  - iii. Takeoff Takeoff has been done (will auto change to this state during takeoff).
  - iv. Completed Chosen when drawing is done
  - v. Locked Nothing can be done to edit the drawing including doing takeoff (Admin or the original user are the only ones able to unlock the drawing).
- d. Default Drop Length Override Edit here for this drawing as the default is 0 feet.
- e. Imported By User that imported the drawing. Cannot edit.
- f. Imported On Date the drawing was imported. Cannot edit.
- g. Locked By –User that locked the drawing. Cannot edit directly, must change the state.
- h. Locked On If drawing is Locked, will show the date it was locked. Cannot edit directly, must change the state.
- i. Original Filename Original filename and location the drawing came from. Cannot edit.
- j. Original Page # Original page number of the drawing. (Especially helpful when there were more drawings supplied than what is needed.) Cannot edit.
- k. Original File Date Original date and time the drawing was transferred to the program. Cannot edit.
- 1. Notes Blank by default. Can be edited here, up to 166 characters.
- 2. These are the fields that can be edited by the user.
- 3. When satisfied with the chosen details, click to Close the Job Information Help window. Paste from Job window will appear and can be edited (by pasting into) before going into the job itself.

#### Main App Toolbar

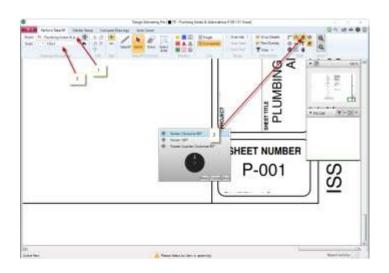


Launch the Design Estimating Pro from the main Takeoff ribbon. Unless otherwise set up, Design Estimating Pro will appear on top of other windows. When using a single monitor it is best to open takeoff windows first.



# Design Estimating Pro (contd.) <u>Toolbar</u>

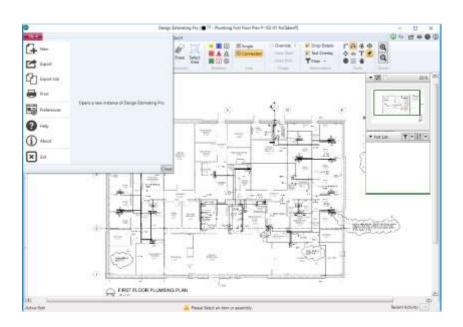
Overview





- 1. Open Design Estimating Pro and choose an UNLOCKED drawing from the pull-down.
- 2. Open the **ROTATE** window to rotate the drawing's orientation on the screen. The options are Rotate Clockwise 90°, Rotate Counter Clockwise 90°, or Rotate 180°. Once the drawing is oriented correctly, choose from the following options; **Reset** to the original orientation, **Cancel** the entire operation, or **Save** the current orientation. As long as there is no takeoff done on the drawing, the user can bring the Rotate window back up using the icon on the Design Estimating Pro toolbar.
- 3. Setting the scale for the drawing will be explained in detail further on.

#### File

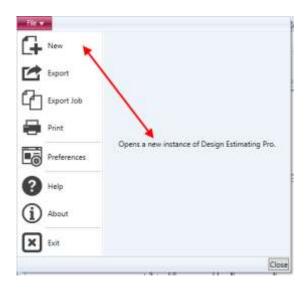




This is the main file window, listing available options with Design Estimating Pro.

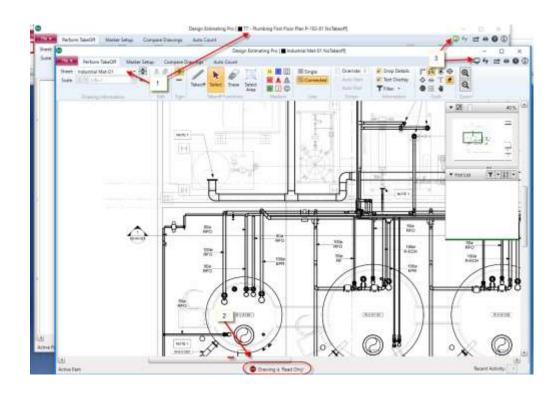
#### New

Allows users to open multiple drawings at the same time.





## **Design Estimating Pro (contd.)** File (contd.)



- 1. Open another new drawing. The usual opening procedures will still be in place, i.e., rotate and set scale.
- 2. Note at the bottom of the drawing that it will be in **Read Only** state.
- **3.** To change working between the different drawings, the user will **Activate** the desired drawing by choosing the Activate Icon. If the icon is **green**, it is the active drawing. If it is **black**, the drawing is NOT active.

### **Export**

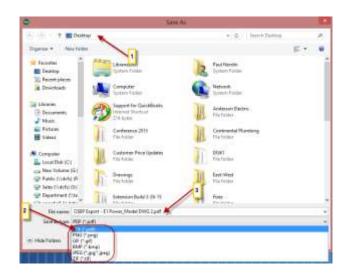
Allows users to send drawings or



a Select Area of a drawing to file



locations in PDF, PNG, JPG, GIP, BMP and TIF formats.

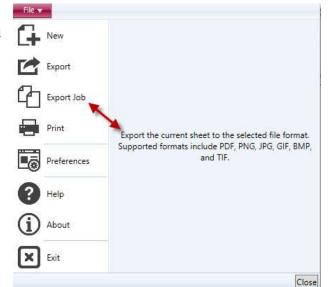


- 1. A drawing or a selected area of a drawing may be Exported.
- 2. Browse to find
- 3. Choose the
- **4.** Name the File and

# **Design Estimating Pro File (contd.)**

## **Export Job**

Allows Users to select



the desired location.

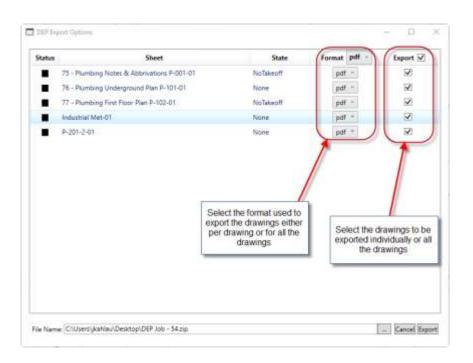
format for the final Export.

Save (not shown).

## (contd.)

sheets within a Job and export them.







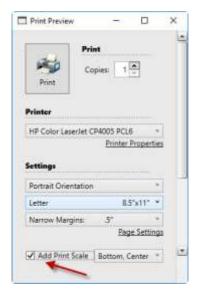
## **Print**

Allows the user to print a section of a drawing or the whole drawing including the Takeoff shown.



## **Add Print Scale**

You can add the scale to the printout with this option, Imperial only.





# **Design Estimating Pro (contd.)** File (contd.)

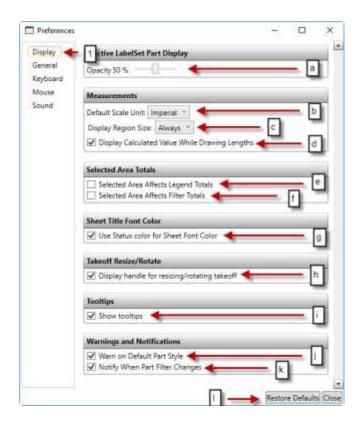
## **Preferences**

Menu to set preferences in Design Estimating Pro, includes the following:





## Display

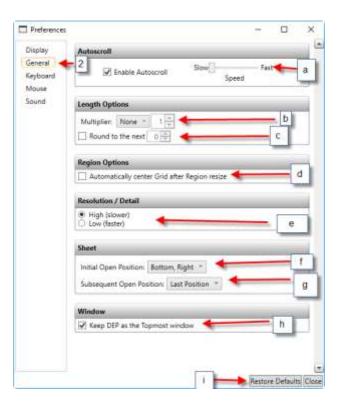


### 1. Display

- a. <u>Inactive LabelSet Part Display</u> Sets opacity on an inactive part (different LabelSet)
- b. Measurements Default Scale Unit: Imperial or Metric
- c. Measurements Display Region Size: Always, Never, or Selected
- d. Measurements Display Calculated Value While Drawing Lengths
- e. <u>Selected Area Totals</u> Selected Area Affects Legend Totals
- f. Selected Area Totals Selected Area Affects Filter Totals
- g. Sheet Title Font Color Use Status color for Sheet Font Color
- h. Takeoff Resize/Rotate Display handle for resizing/rotating takeoff
- i. Tooltips Show Tooltips.
- j. Warnings and Notifications Warn on Default Part Style changes
- k. Warnings and Notifications Notify When Part Filter Changes.
- 1. Restore Defaults

# **Design Estimating Pro (contd.)** File (contd.)

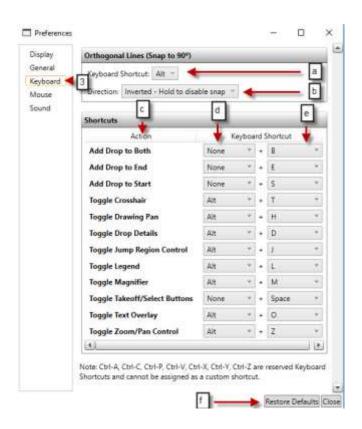




#### 2. General

- a. Autoscroll Enables Autoscroll when checked; scroll speed may also be modified.
- b. <u>Length Options</u> Multiplier: None, Feet to Meters (0.3048), Custom, Meters to feet (3.28084) <u>NOTE</u>: <u>Multiplier Discrepancy</u> shows if the Multiplier doesn't match.
- c. Round to the next Rounds the horizontal run and the drops to the value selected.
- d. Region Options Automatically center Grid after Region resize
- e. Resolution/Detail Select High (slower) or Low (faster) resolution detail.
- f. Sheet Initial Open Position: Top, Left Top, Right Center Bottom, Left Bottom, Right
- g. <u>Sheet</u> Subsequent Open Position: Last Position Top, Left Top, Right Center Bottom, Left Bottom, Right
- h. Window Keep Design Estimating Pro as the topmost window when checked.
- i. Restore Defaults



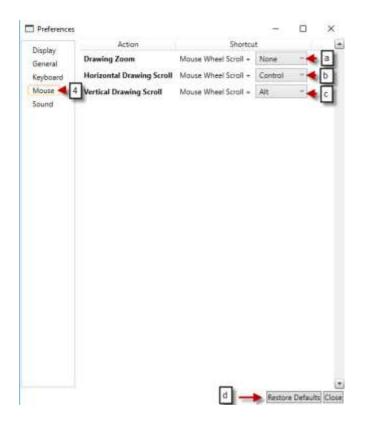


## 3. Keyboard

- a. Orthogonal Lines (Snap to 90 degrees) Keyboard Shortcut: Hold this key (Default Alt), Control, or Shift
- b. Orthogonal Lines (Snap to 90 degrees) While clicking this key (Default Hold to enable snap), or Inverted Hold to disable snap is squared off.
- c. Action Select the Keyboard Shortcut
- d. Keyboard Shortcut Hold this key
- e. Keyboard Shortcut while Clicking this key
- f. Restore Defaults

**Design Estimating Pro (contd.)** File (contd.)

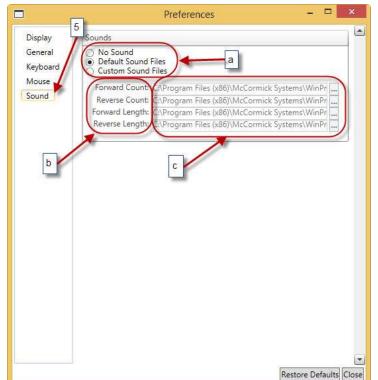




#### 4. Mouse

- a. <u>Drawing Zoom</u> Mouse Wheel Scroll + Alt, Control, None (Default), Shift
- b. <u>Horizontal</u> Wheel (Default),
- c. <u>Horizontal</u> Wheel Control,
- d. Restore

Pan - Hold Shift and wheel down



<u>Drawing Scroll</u> - Mouse Scroll + Alt, None, Control Shift <u>Drawing Scroll</u> - Mouse

<u>Drawing Scroll</u> - Mouse Scroll + Alt (Default), None, Shift

Defaults

Left button or hold scroll

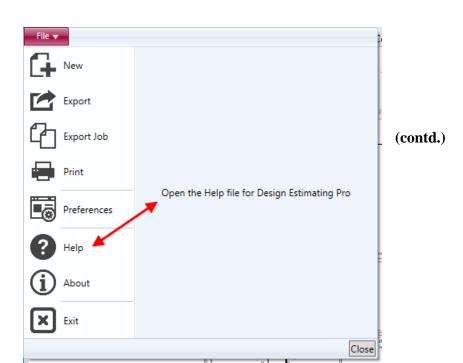


### 5. Sound

- a. Sound Options No Sound, Default Sound Files (McCormick's), or Custom Sound Files
- b. <u>Sounds Used</u> Sounds needed in the program: Forward Count (adding), Reverse Count (removing), Forward Length (adding), Reverse Length (removing).
- c. <u>Custom Sounds</u> File location of custom sounds

**Design Estimating Pro File (contd.)** 

Help

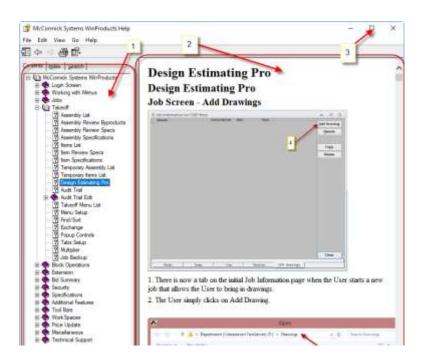




## Help

Clicking Help or the F1 key allows access to Design Estimating Pro Help.



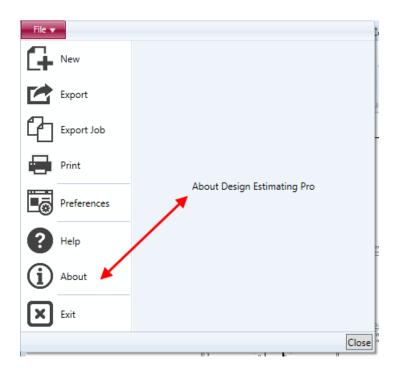


- 1. Help Menu Default for this help is Design Estimating Pro.
- 2. <u>Content Window</u> Showing the Design Estimating Pro help.
- 3. Maximize Window Content is easier to read when the window is maximized.



# **Design Estimating Pro (contd.)** File (contd.)

## **About**

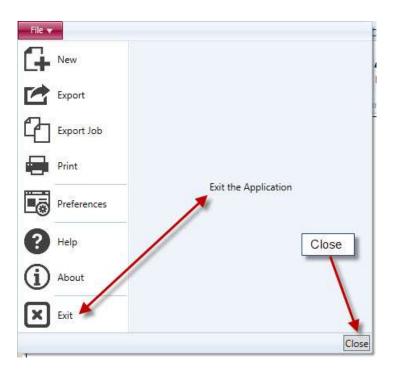


#### About

Shows the version of Design Estimating Pro. May be needed when speaking to McCormick's Tech Support.



## **Exit**



## Exit

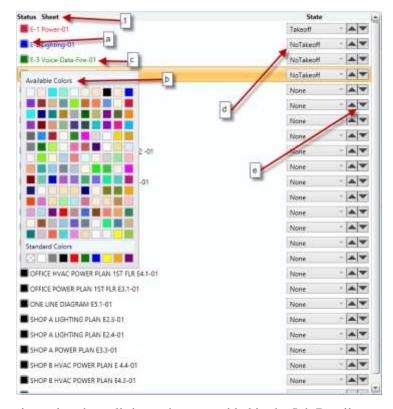
Will exit the Design Estimating Pro application and **Close** will close the file window without performing any operations.



# Design Estimating Pro (contd.) Design Estimating Pro Perform Takeoff Ribbon



## **Sheet**

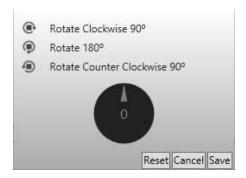


- 1. **Status Sheet**: Choose a drawing using the pull-down that was added in the Job Details screen. As shown above, the list of drawings can be customized once Design Estimating Pro is open.
  - a. <u>Select drawing</u> Choose a drawing from the list by clicking the square in front it (square is black by default).
  - b. Select Color Choose a custom color from the pallet.
  - c. Edit Name Rename the drawing if needed.
  - d. <u>Drawing State</u> Drawing state can be None, No Takeoff, Takeoff, Completed, Locked, and Exclusive Lock.
  - e. <u>Drawing Order</u> Reorder drawings by using arrows.

## **Rotate Drawing**



Once a drawing is selected the rotate drawing window pops up. Drawing may be rotated 90 degrees Clockwise / Counter Clockwise or 180 degrees. If the rotation does not need to be adjusted, click Cancel. If the rotation was rotated, click Save. To return to original rotation click Reset.

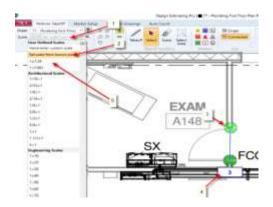


## **Scale**

- 2. Scale I (Imperial) or M (Metric)
- 3. Scale notes The list of available scales will appear automatically as soon as the user chooses the drawing and sets the rotation. This can be bypassed initially until the scale is actually known. A SCALE MUST BE SET TO DO TAKEOFF! There will be a message with a STOP SIGN at the bottom center of the window if the user doesn't choose/set a scale initially. A Hand Entered Custom Scale may be set or there are Architectural and Engineering scales available.



## Design Estimating Pro (contd.) Scale (contd.)



- 1. Set a custom scale (above): Select I (Imperial) or M (Metric), then Click on the scale drop-down.
- 2. Choose **Set scale from known points**.
- 3. Maneuver the two end points to determine what the scale is based on (above shows a doorway).
- 4. Default **length** is zero (0), but if there is a number shown, delete and type the known length.
- 5. Enter and the scale will be shown in the area underneath the Set scale from known points. For now, the scale is determined by Engineering Scale.

### **Drawing Selection**

**4.** The Up/Down arrows scroll through drawings without using drop-down menu. The Bold arrow will default to the last drawing use.

### **Edit**

- **5.** Options (use with Select Area):
  - a. Cut Cut the selected area.
  - b. <u>Copy</u> Copy the selected area.
  - c. <u>Paste</u> Paste whatever has been cut or copied to a different location, including another drawing. The final location is based on the upper left corner of what was cut/copied.
  - d. Delete Delete the selected area.
  - e. Undo

NOTE: All the steps above (a. - e.) will be identified as tooltips when hovering over the icon.



#### Sign

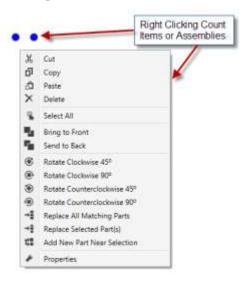
**6.** This choice will make takeoff either positive or negative.

#### **Takeoff**

7. At least one Label should be created before doing Takeoff. Choose an Item or Assembly to take off and click Takeoff Icon if it's not already selected. This will allow Count or Length takeoffs. The cursor will be a PENCIL for takeoff that is counted, a CROSSHAIR for takeoff that is a length, or an enlarged CROSSHAIR surrounding either icon that helps long connected takeoffs. The SPACE BAR allows toggling between Takeoff and Select.

## **Select**

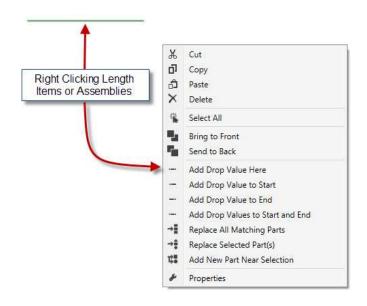
- **8.** Click select icon to choose Counts, Lengths, Notes, Legends, Highlights, Jumps or Regions by clicking on or boxing around them.
  - a. <u>Click or boxing around</u>: allows moving Counts, Lengths, Notes, Legends, Highlights, Jumps or Regions.
  - b. <u>Click or boxing around and hitting Delete on the keyboard</u>: will give a prompt to remove that specific Count, Length, Note, Legend, Jump or Region
  - c. Click and Right Clicking: Edit Options
    - i. For takeoff that is done by Count, these include; Cut, Copy, Paste, Delete, Select All, Bring to Front, Bring to Back, Rotate Clockwise 45°, Rotate Clockwise 90°, Rotate Counterclockwise 45°, Rotate Counterclockwise 90°, Replace All Matching Parts, Replace Selected Part(s), Add New Part Near Selection, Properties.





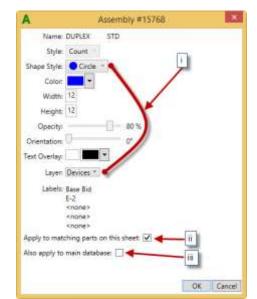
## **Design Estimating Pro (contd.) Select (contd.)**

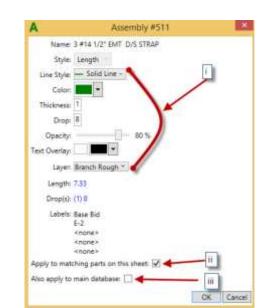
ii. For takeoff that is done by Length, these include; Cut, Copy, Paste, Delete, Select All, Bring to Front, Bring to Back, Add Drop Value Here, Add Drop Value to Start, Add Drop Value to End, and Add Drop Values to Start and End, Replace All Matching Parts, Replace Selected Part(s), Add New Part Near Selection, Properties.



iii. If you right click a region, you can takeoff that region's area or perimeter.

<u>NOTE</u>: Be <u>VERY</u> cautious using <u>Select All</u> as it is exactly what it says. It will select ALL the takeoff done to that point, if Delete is chosen as a next step, ALL the takeoff done to that point will be deleted.







- d. Double click Count or Length and the Design Estimating Pro specifications for that Item or Assembly will appear.
  - i. When changes are made to a symbol, it will not change the matching symbols already taken off on the drawing.
  - ii. Click the Apply to matching parts check box to change all matching parts in that drawing.
  - iii. Click the Also apply to Main database to update the parts database also, but not the symbols already taken off unless the Apply to matching parts on this sheet check box is also checked.

## **Erase**

**9.** The Erase cursor is to remove specific take off. Click on the Erase icon, then an Item or Assembly symbol on the drawing. A prompt will appear asking whether to delete that item or not. Choose the appropriate response.



### **Design Estimating Pro (contd.)**

#### **Select Area**

- **10.** Click on the Select Area icon then click and drag the mouse to select an area. Once selected, the following can be done:
  - a. <u>Delete</u>: Click **Delete** on the keyboard or in the **Edit** functions, it will bring up a prompt to delete all takeoff in selected area.
  - b. <u>Print</u> Open the **Print** function in the upper right corner of the screen to print selected area.
  - c. <u>Paste</u> Click **Copy** in the **Edit** functions, switch to **Select Items**, then **Click** elsewhere in the drawing and choose **Paste**. Whatever was selected will then be pasted in the new location based on the upper left corner of the selection.
  - d. <u>Paste</u> Click **Cut** in the **Edit** functions, switch to **Select Items** then **Click** elsewhere in the drawing and choose Paste. Whatever was selected will then be moved to the new location.
  - e. <u>Edit</u> **Double Click** to edit properties such as fill color, etc. if the selection is a Highlight, Region or Jump.

## **Markers**

11. There are nine markers, of varied colors available: three **Highlighter** (**H**), used to highlight different parts of a drawing. Two **Region** (**R**), used to delineate a part of a drawing, and then using Select, cut/copy/paste to a different location on the same drawing and/or other drawings. Lastly, one **Jump** (**J**), which will appear on top of the drawing in the upper right corner if the proper icon is chosen (see 17 below). When many drawings are being used, using the Jump feature will go directly to a location. There are also three **Grid** markers and additional regions may be added.

## **NOTE**: The "Marker Setup" ribbon will be covered in the next section.

## **Line Options**

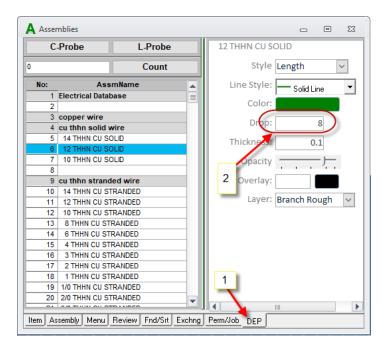
- **12.** The choices for doing length takeoffs are:
  - a. <u>Single-line</u> Click starts the line, another click stops it. Single-line amounts accumulate until moving off the Item/Assembly, which then commits it to the Audit Trail.
  - b. <u>Connected-line</u> Click starts the line, click at any point to change the direction, then a double click at the end stops the line and commits the run to the Audit Trail.

#### **Drops**

13. Override/Auto Start/Auto End



- a. Override used to enter a drop other than what the current Item/Assembly Design Estimating Pro Spec (shown as 1 and 2 below) is set for. Check and enter the desired override amount (i.e., 12, 15, etc.)
- b. <u>Auto Start/Auto End</u> if checked will enter the Item/Assembly drop Design Estimating Pro Spec is set for at the beginning and/or end of any length takeoff.
- c. All Options All three options can be used in combination and can be seen if Drop Details checked.





## **Drop Details**

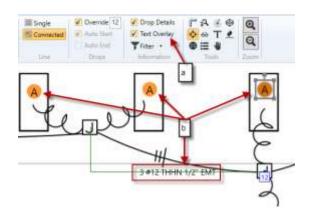
**14.** If checked, displays the drop lengths on the screen (as seen above - note it is the same as the Design Estimating Pro Specific, 8)



## **Design Estimating Pro (contd.)**

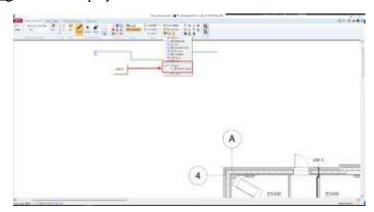
## **Text Overlay**

- **15.** Option can be on or off.
  - a. Text Overly Displays overlay specified in the Item/Assembly of Design Estimating Pro Information.
  - b. <u>Display On</u> –Shows as part of the image used in the drawing. In this example, it is fixture "A" and "3 #12 THHN ½" EMT".



## **Filter**

**16.** Turn off options to drill down. The example below shows three Assemblies, one Highlight, one Region, one Jump, and one layer. The layer is determined by the Design Estimating Pro Specifics for the Assemblies taken off (Fixtures). <u>Unchecking</u> turns off display of that filter. Default Filters include:



Filter continued from the previous page



- a. Notes
- b. Assemblies
- c. Items
- d. Job Assemblies
- e. Job Items
- f. Highlights
- g. Regions
- h. Jumps
- i. Layers
- j. All Labels Checkbox

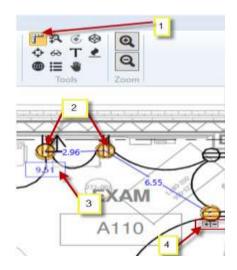
## **NOTE**: Selecting the filter also highlights that element on the drawing

## **Tools**

17. Listed below as left to right, top to bottom as seen on the toolbar.

### a. Measure

- 1. Click Measure Tool.
- 2. When the tool appears, move the two points to the beginning and ending of what is to be measured (straight line).
- 3. It will show the length based on the scale being used.
- 4. The +/- will add or remove a point of ending for multipoint measurement.



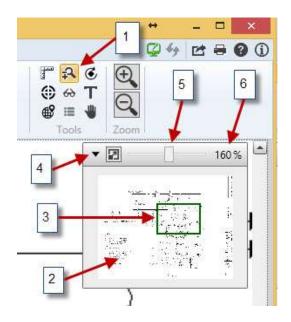


# **Design Estimating Pro (contd.) Tools (contd.)**

## b. Zoom/Pan

- 1. The Zoom tool is on by default.
- 2. It creates the <u>inset</u> window that shows what is on the screen relative to the drawing.
- 3. The <u>bordered</u> area can be dragged within the area of the drawing.
- 4. The pull-down turns the inset portion of the window on or off.
- 5. The <u>slide-bar</u> increases or decreases the size of what's on the screen relative to the drawing.
- 6. Shows the zoom as a percentage.

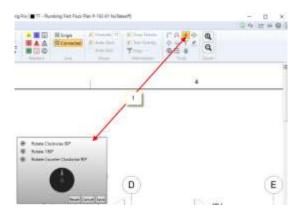
## <u>NOTE</u>: Rolling the mouse wheel or clicking the Zoom + or - will also zoom in or out.





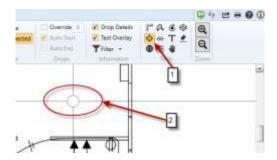
### c. Rotate

1. If there is no takeoff currently on this drawing, this feature will rotate the drawing on the screen as shown earlier.



### d. Cursor

- 1. Click Cursor icon
- 2. Cursor becomes long crosshair surrounding the pencil (not shown) for count takeoff and small crosshair for length takeoff. The effect is similar to tracking on a plotter.

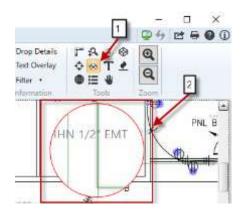


Design Estimating Pro (contd.) Tools (contd.)

## e. Magnifier



- 1. Click the Magnifier icon to create a movable zoom window.
- 2. Function tracks similar to a crosshair, but zooms what it passes over.



### f. Note

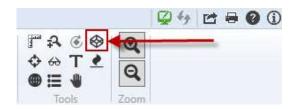
- 1. This icon will let the user add a note to the drawing Click **Note** icon and Click at the desired location on the drawing.
- 2. The toolbar will automatically switch to **Select**.
- 3. Type note text. The window may be resized or moved. Enter to start a new line, right click and choose delete to delete text or choose Properties to modify the text type.



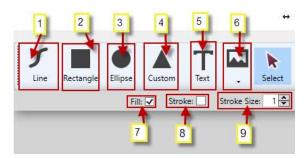


### g. Symbol Designer

- 1. Click symbol designer icon
- 2. When the designer window opens select file, new symbol.
- 3. On the left side of the window will be a list of symbols currently created/recognized by the program. Select the new symbol you have made and rename it.
- 4. Existing Symbols may be copied and modified and moved up and down in the list.



### h. Symbol Designer toolbar



- 1. Line function allows to freestyle draw straight lines for the symbol.
- 2. Rectangle function allows for the drawing of either a rectangle or a rectangular outline through the added use of the fill and stroke options.
- 3. Same as the rectangle but for a circle or circular shapes.
- 4. Same as the rectangle and circle but for triangle shapes.
- 5. Text adds text to the symbol.
- 6. Selection of clipart/wingdings that can be used in the symbol.
- 7. Fill function allows for the different shapes to be filled in as opaque.
- 8. Stroke function allows for the shapes to be outlines instead of completely filled in.
- 9. Stroke size/thickness for the lines and shape outlines can be adjusted. Must be adjusted before beginning to draw the line or shape.



# **Design Estimating Pro (contd.) Tools (contd.)**

## i. Jump Regions

- 1. Click Jump Regions icon.
- 2. This brings up the popup for accessing the Jump Regions.
- 3. The down arrow will minimize the list.
- 4. The bold arrow will return the user to the last jump.
- 5. The list will let the user choose a jump directly.
- 6. Highlighters, Regions or Jump properties may be viewed and modified by double clicking in their areas.
- 7. Or by Clicking Properties.



## j. Legend

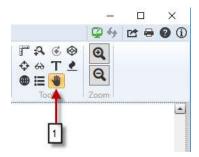
- 1. Click Legend icon
- 2. It will bring up what takeoff has been done, including the symbol, count/length, and name. The default location will be the upper left corner of the drawing.
- 3. By using Select, it creates a box around the current Legend, it can now be positioned it on the drawing. Any further takeoff will automatically size itself to fit within this Legend box.
- 4. The Legend only lists the takeoff shown in the drawing. Takeoff not shown because it is not checked in the Filter will not be listed in the Legend.



#### k. Pan



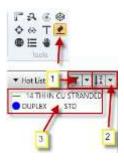
1. Choosing the Pan icon will bring up the familiar pointing hand icon (not shown) that allows the drawing to be clicked and dragged to a desired view. This is dependent on the level of zoom being used. Panning may also be done by depressing the mouse wheel.



#### l. Hotlist

A list of previously used assemblies and items for takeoff on the drawing can be selected in the list and used again elsewhere in the drawing or on other drawings in the same job and same window.

- 1. Select which drawing to show the list of assemblies/items from.
- 2. Sort them in various ways. (Entry time, part name, items-assemblies, quantity.)
- 3. List of assemblies/items is shown here.



### **Design Estimating Pro (contd.)**





### Zoom

**18.** Drawing Zoom control, plus [+] zooms in, minus [-] zooms out directly in the drawing. Rolling the mouse scroll wheel will also zoom in and out.

#### **Activate**

**19.** Activates one window to work in when multiple drawings are open at the same time. The **Green** icon is active, the **Black** icon is inactive.

#### Refresh

**20.** Refreshes an inactive drawing and show the takeoff done by another user.

#### **Export**

**21.** Exports the current drawing, or a selected area of the drawing, to another location using browsing tools.

### **Print**

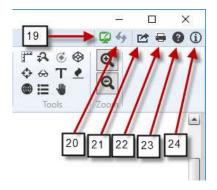
**22.** Prints whatever is showing of the drawing, or a selected area, like a print screen (this can be helpful if the drawing is zoomed in).

### **Help**

23. Opens Design Estimating Pro Help.

## **About**

**24.** Shows the version of Design Estimating Pro.

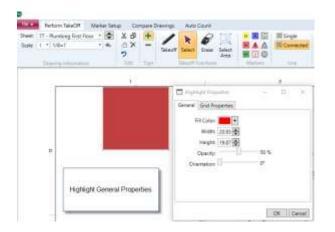




## Marker Setup Ribbon <u>Highlight Toolbar</u>



The Highlight General and Grid Properties are shown below.

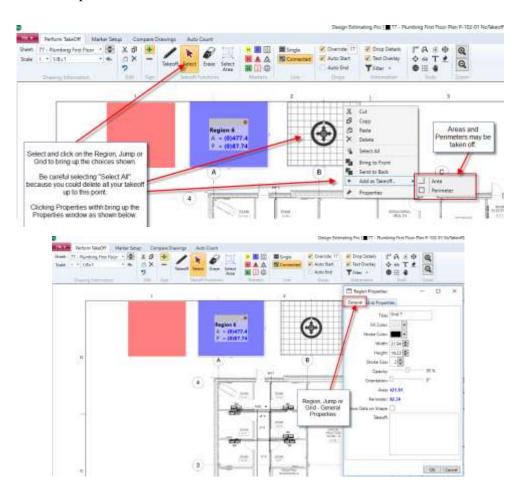




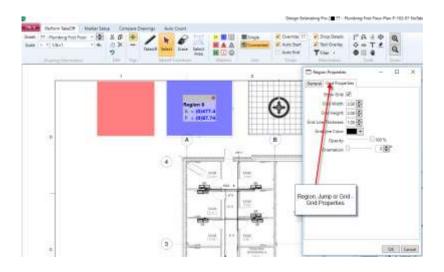


# Design Estimating Pro (contd.) Region/Jump Toolbar

The Region, Jump, and Grid Properties are shown below.







The Marker Setup toolbars are for creating and/or editing the marker features, including Highlights, Regions and Jumps. As shown above, both toolbars are very similar. The user is only allowed up to eighteen (18) user-defined preset markers, meaning each user can have their own presets. Definitions are below.



#### **Presets**

1. This is the list of presets the user will also see on the Perform Takeoff toolbar. Hovering over them will show what has been setup for each one, depending on if it is a Highlight or Region/Jump. This can expand to a total of 18 presets or minimize to a minimum of 3. This will include areas [3 above], [4 above], and [5 above], which will be defined later.

#### **Type**

2. Choose between Highlight [2a above] and Region/Jump [2b above].

#### **Shapes**

**3.** Choose between 3 basic shapes, Custom (hand drawn by User), Rectangle, and Ellipse. These are the shapes the marker will take on the drawing. That means the user may want to have a Highlight, for example, that is an ellipse with a different color as an optional choice.

## **Design Estimating Pro (contd.)**

#### Style

4. Fill and Stroke Colors



- a. <u>Style Fill Color/Opacity This is common to the Highlight, Region/Jump, and Grid. Click on the drop-down for a color palette with any number of colors. The Opacity slide bar controls how well the drawing is seen through the marker. Practice is needed to get the optimum effect.</u>
- b. <u>Style Stroke Color/Stroke Size</u> This option is unique to Region/Jump markers. Stroke Color is the color of the border when applied to the drawing. Click on the drop-down for an additional color palette to choose different color options. Stroke Size is the width of the border when applied to the drawing. This can be edited using the up/down arrows.

#### Grid

**5.** Can define characteristics of the grid before drawing. Such as width, height, color, the thickness, opacity, and orientation.

#### **Settings**

**6.** Once the marker has been created/edited Click Save Preset to save the marker.

#### Select

7. These were defined in the previous section Perform Takeoff.

#### **Tools**

**8.** These were defined in the previous section Perform Takeoff.

#### Zoom

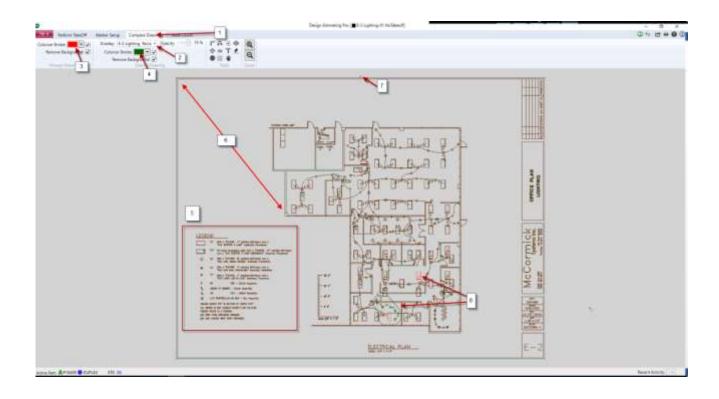
**9.** These were defined in the previous section Perform Takeoff.

#### **Data**

- **10.** This option is also unique to Region/Jump and Grid markers.
  - a. <u>Show Data on Shape</u> Checking this box will show the ascending number for the Region/Jump or Grid when applied to the drawing, as well as the A=/P=. [A=] indicates the volume of the area where the Region/Jump or Grid is located on the drawing, and [P=] is the perimeter of that area.
  - b. <u>Title</u> Enter either the Region, Jump or grid in this field. That is what will appear if Show Data on Shape is checked.
  - c. <u>Auto Suffix</u> Check this box to add the auto-ascending number to Title if Show Data on Shape is checked.
  - d. <u>Jump</u> Three options here; None, Sheet, or Global. This choice determines if the Region/Jump will be shown in the Region/Jump window, should the user show it on the drawing [8g, defined in Perform Takeoff].
    - i. Area titles will not show in the list at all. None will not show in the list.
    - ii. **Sheet** will show in the list, but only when on that Sheet/Drawing.
    - iii. Global will show in the list and will go to that location from any Sheet/Drawing.



## **Compare Drawings Ribbon**



If a revised drawing must be used, go back to Job Details, and bring in the revised drawing as done originally. Once that is done, follow the steps as shown below.

- 1. Select the original drawing using the Perform Takeoff ribbon, then click Compare Drawings ribbon in the Design Estimating Pro tool bar.
- 2. Choose the revised or overlay drawing in the Overlay field.
- 3. Note and/or edit the Colorize Stroke for the original drawing using the color palette.

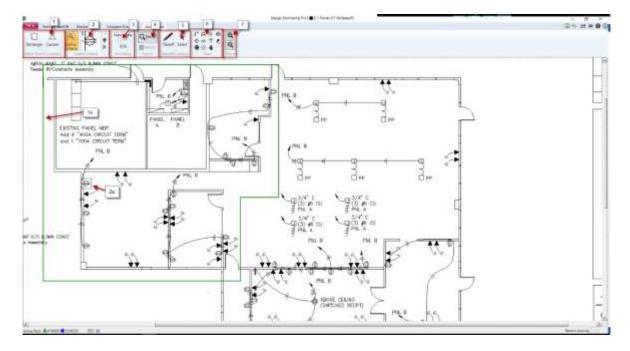
## **Design Estimating Pro (contd.)**

**4.** Note and/or edit the Colorize Stroke for the revised drawing using the color palette (it's strongly suggested to use a contrasting color).



- **5.** There may or may not be a new supplemental legend for this drawing.
- **6.** Drag the overlay drawing so it matches up with the original.
- 7. Sometimes the overlay will be a different orientation than the original drawing. Even if the revised drawing is saved in a rotated orientation, the overlay drawing will appear in its original form. The gray dot will allow the User to rotate the overlay drawing to the same position as the original.
- **8.** Any new changes are shown in the Colorize Stroke color chosen in steps 3 and 4. Any of the original takeoff removed will be shown in the original drawings Colorize Stroke (Step 3). Any takeoff added will be shown in the revised drawings Colorize Stroke (Step 4). Revise your takeoff in the drawings as needed. You may delete any old takeoff that is now obsolete and do any new takeoff the overlay requires.

### **Auto Count Ribbon**

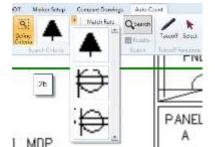


### **Define Search Location**

- 1. Two methods to Define the Search location are:
  - a. Rectangle Draw a rectangle by clicking one corner and dragging to the opposite corner of the search area.
  - b. <u>Custom</u> Start at a corner and draw the line to mark an area. Clicking allows changing direction and double clicking stops the line. The drawing above shows a custom area.

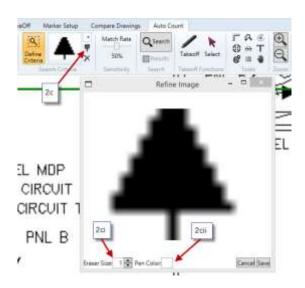
#### **Search Criteria**

- 2. Steps:
  - a. Marking an outlet for the search criteria in the drawing above.
  - b. Pull down arrow showing the search criteria list.





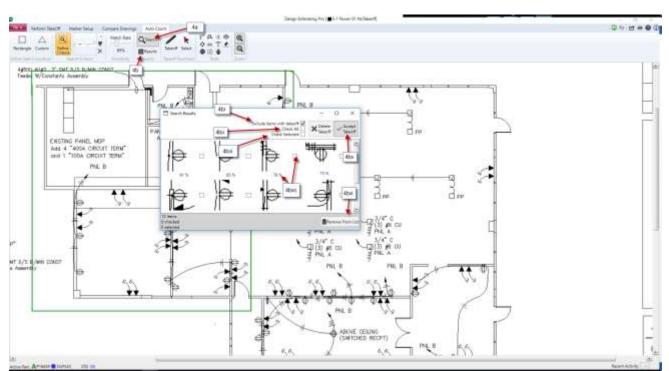
- c. Clicking the Paint Brush allows refining the image.
  - i. Select the eraser size.
  - ii. Select the pen color.
- d. Clear Criteria



### **Sensitivity**

**3.** Match Rate can be set. A higher match rate shortens the search time. A user will obtain a feel for the match rate needed after using it.

Design Estimat ing Pro (contd.)





### Search

### 4. To begin Search:

- a. Click Search icon.
- b. Click Results icon to bring up the Search Results.
  - i. Exclude items with takeoff: will ignore any takeoff already completed when the box is checked. The box is already checked as the default.
  - ii. Check All: checks or unchecks everything in the list.
  - iii. Check Selected: checks the boxes for anything selected. An item in the list may be selected by clicking on it or multiple items in the list may be selected by holding the control key for individual selection or shift key for selecting a consecutive group.
  - iv. Delete Takeoff: deletes search takeoff shown when the Exclude items with takeoff: box is unchecked.
  - v. Accept Takeoff: will takeoff any of the Items checked.
  - vi. Remove From List: removes any Items in the list that are checked.
  - vii. Clicking an Item in the list selects it and checking the box marks it for takeoff.





# **Takeoff and Select**

**5.** Icons as shown previously.

# **Tools**

**6.** As shown previously.

### Zoom

**7.** As shown previously.

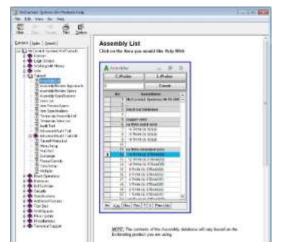
# $\begin{tabular}{l} \textbf{SECTION III Additional Job Estimating Information} \\ \textbf{Help} \end{tabular}$







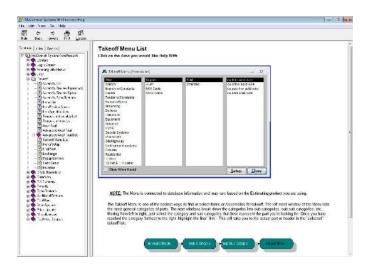
The basic Help screen, as shown at left, is the typical menu style that most of us are familiar with from other Windows programs. Access by using the Help tab and Help Contents icon in the ribbon. This style requires you to know where the information is contained that you are looking for. The breakdown is pretty self-explanatory and shouldn't create any problems, but we have provided a much more User friendly method of using Help.



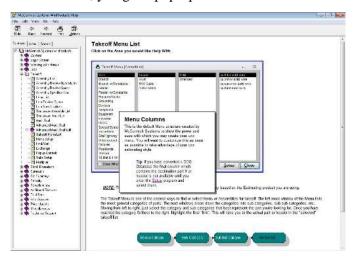
This alternative method is what we call context sensitive. In other words, it goes where you are in the program (this example is an Assembly takeoff window). To use this feature, put focus on the area in question; i.e., a takeoff window, menu, Audit Trail, etc. Then hit the **F1** key on your keyboard. It will bring up the help window for that area. You will notice it also has the accompanying text describing the help topic and the green highlights that will lead to related information.

The note at the top of the window directs you to "Click on the Area you would like Help With". Moving the cursor around the image will produce a pointing finger. Point to the area you have a question on and do a single **Click**, such as Menu. This will then prompt the help screen to go to that area as shown below.



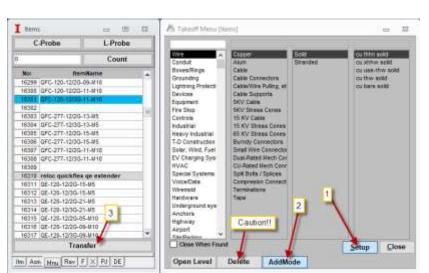


You can continue this process up to the point that a link to the actual database is necessary, at which point you will get a final text box with help information. The below example shows clicking in one of the menu columns. Because it isn't able to actually go there in the database, you get a pop-up window that describes what the action is.



To get out of help, hit Back until you're where you want or just close the window. You can always print any information on the screen and make your own reference manual for those areas you use frequently.

Additional Job Information (contd.) Menu Set-up



**Estimating** 



### **NOTE:** The Takeoff Menu Setup remains the same for any estimating product you use.

This screen allows you to add or customize the categories & sub-categories that make up the Menu window (right side), allowing you to set-up new menu lists. To change any existing entry, first click on the Setup (1) button in the lower right corner. Double clicking in a column will shift the focus to that column. You can add, rename or edit the entry in the box above the list. To add a new category or actual part, click on the <a href="AddMode">AddMode</a> (2) button.

#### AddMode

Once you enter AddMode any takeoff lists you have open will now show a Transfer (3) button located just above the tab bar along the bottom of the Takeoff window. To transfer parts or headers into your menu system follow these steps:

- Select the column where you would like the part or header to appear in the Takeoff Menu.
- Highlight the part or header in the <u>takeoff list</u> and click on transfer.
- You can keep transferring headers or parts until your menu lists are complete.

<u>NOTE</u>: You are allowed to create one more level to the Menu window by selecting the Open Level button. If used, this column <u>HAS</u> to be a "link" back to the actual database.

**Tip:** Once you have made a Transfer of an Item/Assembly or Header that stops the path. You cannot create a sub-link in the next column.

<u>CAUTION!!!</u> Although there is a Security check that by default is unchecked to limit how many Menu Items are Deleted, be careful using the Delete button.

#### **Workspace Listing**

NOTE: The Workspace Listing will vary based on the estimating product you use.

The Workspace window in McCormick's Win Product offers you an easy way to select items or assemblies that you frequently use together. The software comes loaded with a large number of pre-defined workspaces or you can set up your own unique

workspaces.

Shortcuts

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**Tip:** While the takeoff menu offers a convenient way to select a part in *one* takeoff window, workspaces allows you to select parts in many takeoff windows at the same time.

#### **Workspace Pages**

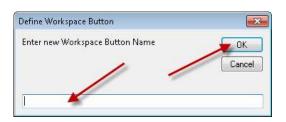
Shows the list of workspace pages that are available. To open, click on any workspace page in the list on the left side.

### **Close When Found**

This option causes the selected screen to close once a match or action is performed. This is useful when you know you will only be using the selected screen minimally.

# **Additional Job Estimating Information (contd.) Workspace Buttons**

- Click on any workspace page in the list on the left side to access the page of available shortcuts. Choose a button to open the shortcut to the items and assemblies that are included in that workspace button.
- To define a new workspace button, set-up the Takeoff windows and Audit Trail you want to save as the new workspace, and then open the Workspace Listing window. Select a page and *right-click* on the button you want to save the workspace to. Select *Snapshot Plus*, and then enter the name for the new workspace button. Saving the new workspace will take a snapshot of the configuration of Items and/or Assemblies windows that were open at the time the workspace was saved, *including* the Audit Trail (using the option Snapshot will **NOT** include the Audit Trail in the shortcut).







**Tip:** Snapshot only saves the *Takeoff windows* open at the time the button was defined. Snapshot Plus will save both the *Takeoff Windows and* the *Audit Trail*. A toolbar button snapshot saves all the windows open at that time, *including* the Audit Trail.





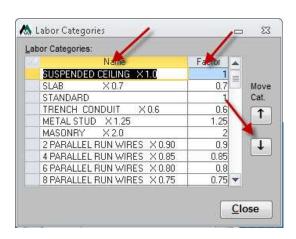
### **New Workspace Page**

Choose <u>Set-up</u> from the Workspace window to get the above left window. In this window, choose <u>New</u> to get the New Workspace Page window on the right. Entering a new name will give you a new, clean page to customize any workspace buttons you need.

### New Workspace Name

Choose the current Workspace page name from the list on the right and choose the <u>Rename</u> button. Just enter the new name you want for the workspace page.

### **Labor Categories**



### **NOTE:** The Labor Categories will vary based on the estimating product you use.

This screen is used to create or modify the settings that are available for use with a <u>Takeoff list</u> or <u>Audit Trail</u>. Since Labor Categories are Job specific, you may use the <u>Paste From</u> screen to save you from having to recreate new categories



for each job. If you choose not to paste in new settings from a previous job or template, the above settings are reduced to Default Labor (X 1), Easy Labor (X .05) and Difficult Labor (X 1.5).

#### **Labor Category Name**

This box contains the name of the labor category. McCormick comes loaded with several standard labor categories, which can be used as is or customized with your own identifying names.

**Tip:** If you include the Factor as part of the Name, it will show up as part of the takeoff window during takeoff without having to constantly use the pull-down or refer to the Audit Trail.

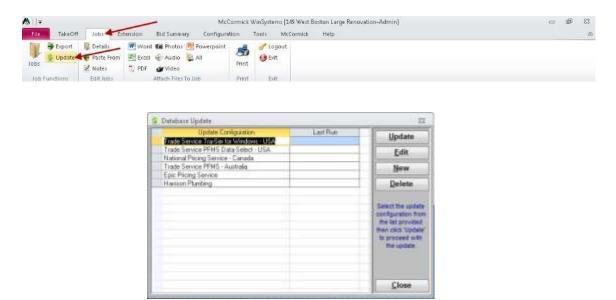
There is a blank line at the bottom of the labor category list where you can enter additional labor categories. There is virtually no limit to the number of labor categories you enter, however you are limited to 32 characters for the labor category name.

### **Labor Category Factor**

This box lets you enter an adjusting factor to the labor category. For example, you might want to include a factor of 1.5 for difficult installations, or 0.5 for easier installations (assuming 1 is a typical installation.) This factor is used in Extension to adjust the labor unit associated with any line item of takeoff.

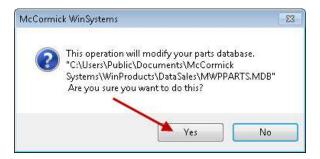
**Tip:** Once you create or edit a Labor Category, you can move it up or down in the list using the buttons on the right.

# **Additional Job Estimating Information (contd.) Price Updating**

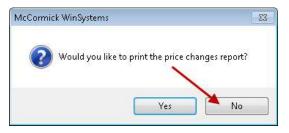


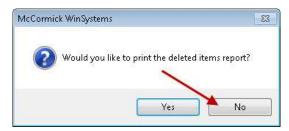
Price Updating allows you to update your current database with the latest price and labor specifications provided by third party sources (Pricing Services, Suppliers, etc.). If you have already run a successful update, select the <u>UPDATE</u> option.





Now you will be prompted for your "printing preferences". Select the options you want (usually No) and continue on.





You have one last chance to cancel the operation.





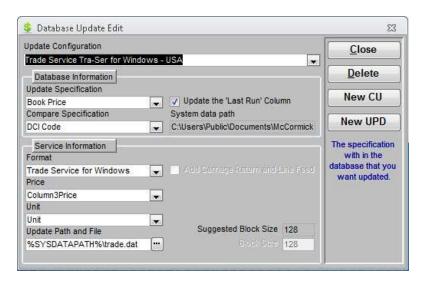
When you receive the message **Start your update application now**, start your third party application as you normally would (notice you will be unable to minimize McCormick). Once your third party application has started its update, monitoring will be returned to the McCormick.



Before updating the database prices, <u>read the bulletin</u> that the pricing service sends with each price update disk. The bulletin contains information on changes in vendor number (UPC/EDP/DCI code), prices, new items, discounted items, etc. McCormick Systems supports many different Price Updating services with more being added all the time.

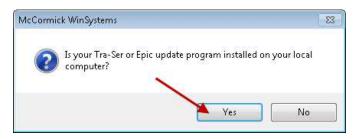
**Tip:** If you would like a specific vendor added to the list of supported formats, contact your vendor and let them know. We will be happy to work with them directly. Just have them call us.

# **Additional Job Estimating Information (contd.) Pricing Configuration**

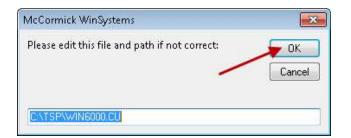


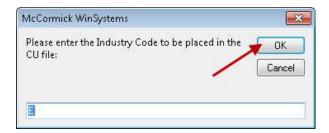
If this is the first time you are run the price updating function, you will need to create a new Update Configuration. To do this, select the format that your data is in from the previous screen and select <u>EDIT</u> from the buttons to the right.

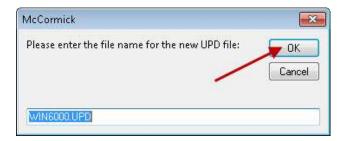
This screen allows you to define the parameters of a new or current Update Configuration. Keep in mind that you will only need to create a new CU or UPD file the first time you run an update for each vendor.

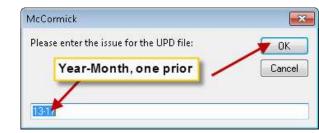












<u>NOTE:</u> Most third party vendors may be emulated by modifying the data on these screens. If you have any questions on the information needed by your vendor, please contact Technical Support.

If you are performing this process as the result of a failed update, you will be prompted that the file already exists and would you like to overwrite? Your response would be Yes.





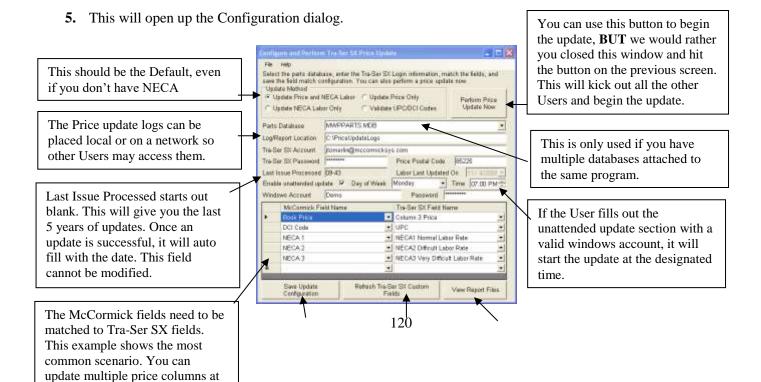
### **Additional Job Estimating Information (contd.)**

### Setting up McCormick for use with Tra-Ser SX

the same time if the User has the

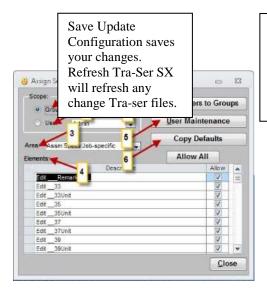
- 1. Open any job, go to the Jobs tab and Update icon in the ribbon
- 2. You will no longer be using the top selection Trade Service Tra-Ser for Windows after this.
- 3. Click New, add Tra-Ser SX as the Description
- **4.** Select Tra-Ser SX Internet Transfer from the Update Format pull-down.







### **Security**

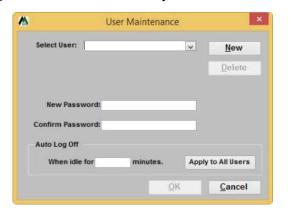


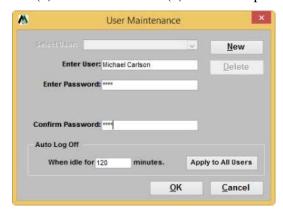
Reports are not printed by default, they are stored. If you hit the View Report Files button, you will have access to the report archive. You can then print any past successful reports.

### <u>NOTE</u>: Access to Security will vary based on Security setup and the estimating product you use.

The software also allows for creating individual Users with specific levels of security. This function is limited to those with ADMINISTRATOR level of security in general or only those that have been assigned the authority. Access using the Configuration tab and Security icon in the ribbon.

The Security window allows you access to the different areas of security. It is broken into two main sections or SCOPE. The **GROUP** selection (1) allows the Administrator to make general changes to an entire group at the same time. The **USER** selection (2) allows the Administrator to define the security to an individual User, regardless of the group assignment. This will allow very exact functions using the **AREA** (3) and **ELEMENTS** (4) within that particular area.





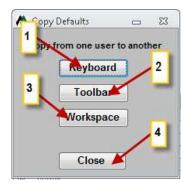
The first step or option is to go to **USER MAINTENANCE** (5). This area will allow you to do one of two operations. Assign either NEW PASSWORDS as shown on the left, or create a NEW USER as shown on the right.

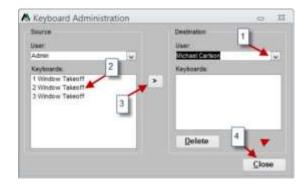
<u>NOTE</u>: The User Name is used on reports and the sign-in list. Therefore "cute" nicknames such as Bubba, Buffy, and Slick are not recommended.

Once the New User is assigned a name and password, the next step is to assign the **DEFAULT** settings (6).



# Additional Job Estimating Information (contd.) Security (cont'd.)

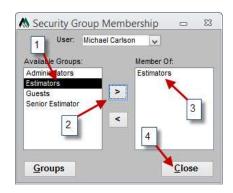




Default settings provide **KEYBOARD MAPPING** (1) for utilizing the same keyboard commands that were used in the original DOS application and the automatic input of takeoff. This is also used to copy default **TOOLBAR** buttons (2) and the **WORKSPACES** (3) the User will work with inside the program. The new User is the **DESTINATION** (1) in the above right window. Choose an existing User that has the defaults needed for the new User as the **SOURCE** and highlight the first default in the list (2). Use the right pointing arrow between the two windows (3) to **transfer** the desired defaults to the new User. The list will automatically advance to the next choice and continue to transfer as you click on the right pointing arrow. It will also notify you if everything has been sent or a duplicate exists. When done with each default, click **CLOSE** (4).

 $\underline{NOTE}$ : All three types of defaults MUST be created for every User, regardless of final level of security assigned to the  $\underline{User}$ .







The next step in the procedure for creating a new User is to assign the User to a GROUP. We have three (3) levels of security already in the program. Each level of security has its own distinct capabilities as follows:

GUEST – Has no rights. All new Users automatically get this level of security. It is a look but don't touch function.

**ESTIMATOR** – Has limited rights within the program. There are two very specific restrictions on an Estimator that need to be considered when assigning this level;

- 1. An Estimator is NOT ALLOWED TO EDIT THE PERMANENT DATABASE! This is probably the single most important restriction on the Estimator level of security. This is critical to maintaining the pricing and labor correctly and not compromising the integrity of the database.
- **2.** An Estimator CANNOT enter another job unless the Lead Estimator on that job has assigned them to it. An Estimator CAN start a job of their own and see it through to completion.

<u>SENIOR ESTIMATOR</u> – Has rights specifically devoted to Edit Extension. This User would only have rights to make changes to existing saved Edit Extensions on a job. If the Senior Estimator is doing actual estimating, either Estimator or Administrator would make the better choice.

<u>ADMINISTRATOR</u> – This is the highest level of security in the system. Has unlimited rights to any and all areas of the program, unless previously curtailed by a designated "SYSTEM ADMINISTRATOR" that has overall control of security. In those situations, the System Administrator will disable certain functions of security per group or User, and also prevent any other User, regardless of level of security, from accessing SECURITY at all.

<u>NOTE:</u> Only one level of security should be chosen for any User. Multiple selections of security will cause a conflict in certain areas of the program, resulting in the program opting for the LESSER of the securities.

It is possible to create new GROUPS of security with customized functions, but that is an advanced function and should be discussed with a qualified tech at McCormick Systems Inc. before attempting.

# Additional Job Estimating Information (contd.) Job Backup/Restore



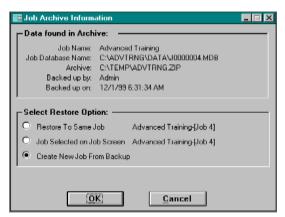


Backing up a job is a matter of telling the program where and how you want to back it up. As the window above indicates, you can give the job a name by typing it in the **File Name** field. Job names can be whatever you choose. The entire path will be shown in the File Name field when the window appears.

You can also choose the destination of the backup using the Save in field. One option might be to create a folder for old jobs on your hard drive, or folders for each of your Users. You can also back the job up to any media your system recognizes using the pull-down, giving you a list of available media (disc, USB drive, etc.).



Restore is the exact opposite of a backup. Select the media you backed up on (or the folder you backed up to), select the archive file, and click OK.



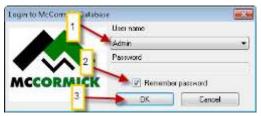
Once you have chosen your archive file, the program will process the restore and bring up the above window. Note that it contains all the backup information from when the file was created in the top portion.



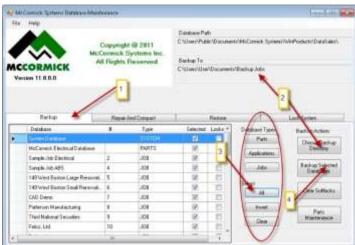
Select the **Restore Option** you wish. You probably will NOT see the first option most of the time since it only comes up if you are restoring the exact same job to the exact same computer it was backed up on. The default choice is to **Create New Job From Backup**. This is the logical choice for a first time restore on another system, since it will likely be another job number entirely.

If you work in this job and decide to back it up and take it back to the original source, it is recommended that you highlight the original job in the job list, select Restore from the Job Screen, go through the restore process and then select **Job Selected on Job Screen** from this window. This will overwrite the old job with the new job containing the additional work. You can, of course, choose to restore the backup job back to the original system as a new job, but remember you will then have two jobs with the same name, but different job numbers (the higher the number, the newer the job).

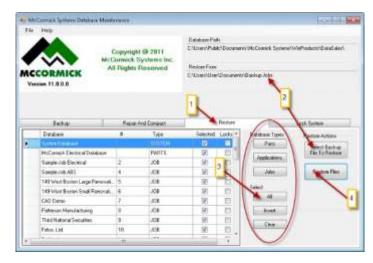
# Additional Job Estimating Information (contd.) Backup – System



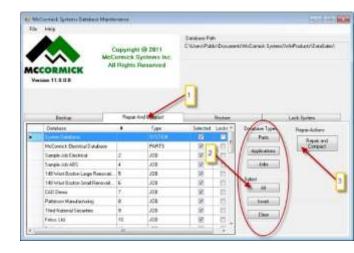
<u>NOTE</u>: The number of system backups available for each company may vary based on the estimating product you use.





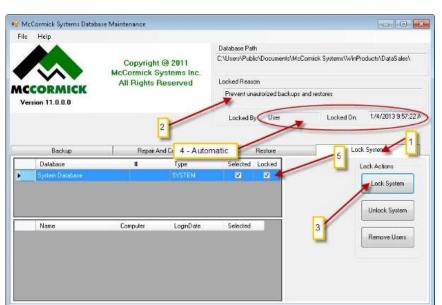


Click on RESTORE and complete these steps. The default restore is to the program database path. The utility will remember the last Restore From choice made.



This utility will also be automatically accessed the next time you open the program, should you exit our estimating program improperly (shutting off the computer in the middle of the job, either on purpose or by accident for example). In which case you would select REPAIR & COMPACT and select those areas you wish to fix. If it is a job, you should choose the job you were in and all three of the databases (System, Application and Parts), but the Parts as a minimum.

Also, it's not a bad REPAIR & everything at least backup utility doing any kind of management. Use it possible to save your

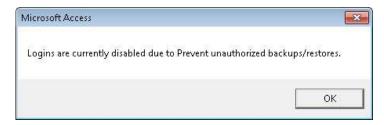


idea to run the COMPACT on once a week. Use the whenever you are major database as frequently as work.



# Additional Job Estimating Information (contd.) Backup – System (contd.)

The Lock System (1) tab allows you to set a system message (2) and lock the System Database (3). The system logs who it's locked by (4) and the checkbox (5) indicates it is locked. Any Users will get a system message that the database will be locked and gives them a logout now button, if the User is not at their desk it will log them out safely after 5 minutes. They will get the following message if they try to log back in, until the Systems Database is unlocked.

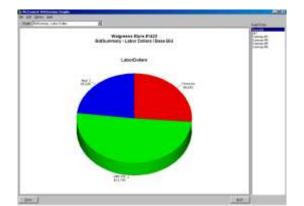


You CAN backup the parts database by itself and copy it to any other install of our software (i.e., on a laptop or another system in the office). There are a number of reasons you would not want to copy the System database to any other system than its original, mainly because the backup may have old information on Users and job names.

<u>NOTE</u>: Use the Database Types and Select Actions to make pre-set choices as indicated. (Such as selecting all the jobs at once)

### **Graphs**

Graphs are available for Bid Summary by selecting the Bid Summary ribbon and Top Sheet in the Graphs area. These Graphs automatically come up as pie charts.



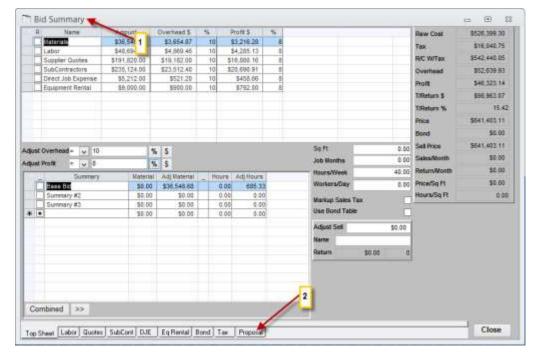


You have the same options as the Extension graphs, with the added ability to "Drill Down" on any slice by selecting

DRILL lower right

Proposal Opening

NOTE: the information may vary Estimating using.



DOWN in the corner.

#### **Proposal**

Proposal and content based on the product you are

The Proposal feature integrates Microsoft Windows® Word TM directly into the McCormick estimating program to use existing templates and/or create new templates from scratch or by importing from existing documents outside the program. Initializing the Proposal feature can be accomplished a number of different ways.

- 1. The first, as shown above, is to open **Bid Summary** for a job;
- 2. Click on the Proposal tab along the bottom of the window.



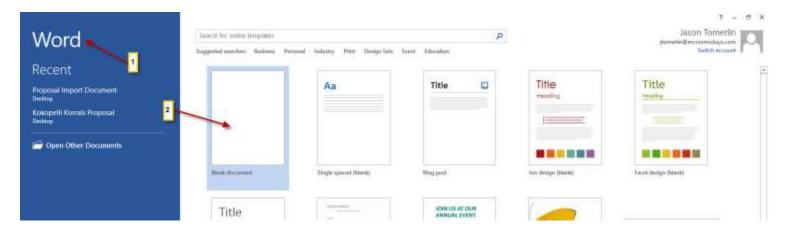


- 1. The second method is to **Click** the Bid Summary tab in the ribbon;
- 2. Then Click the Proposal Sheet icon under Tools.

### Additional Job Estimating Information (contd.) Opening Proposal (contd.)

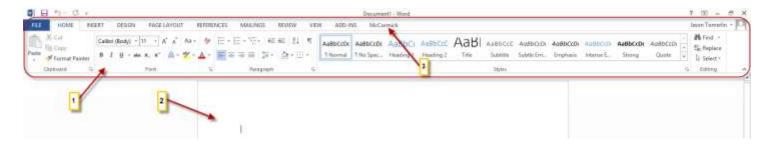


- 1. Or, Click the Tools tab in the ribbon;
- 2. Then **Click** the Proposal Sheet icon under Tools.



- 1. At this point the program will launch Word.
- 2. To begin, Click the Blank document as shown.



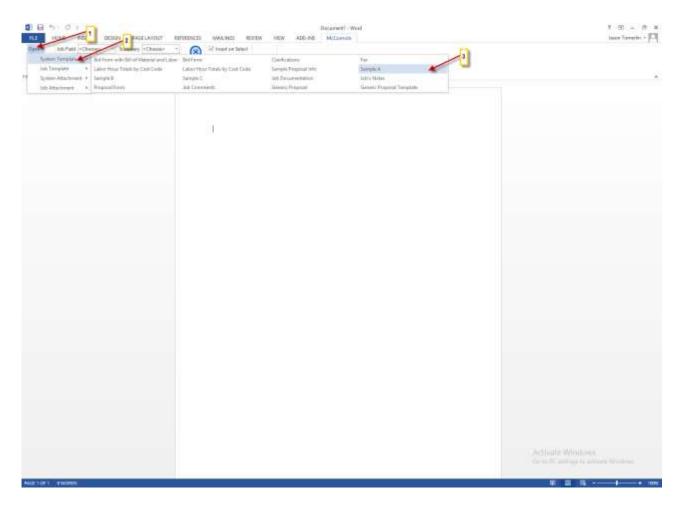


- 1. It will open a Word ribbon;
- 2. And a blank document.
- 3. To start our Proposal process, the User must Click on the McCormick tab in the ribbon.



- 1. This will bring up the McCormick ribbon for Proposal;
- 2. And the User will still have the blank document.

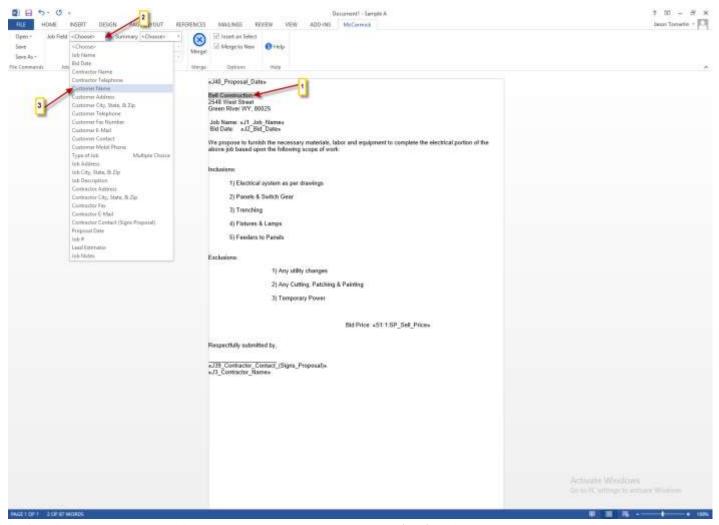




- 1. Once in the McCormick Proposal ribbon, Click Open;
- 2. Choose the location of the proposal you would like, such as System Template shown;
- 3. This will present a list of existing System Template proposals. Click the one you want.

# Additional Job Estimating Information (contd.) <a href="Editing Proposal"><u>Editing Proposal</u></a>

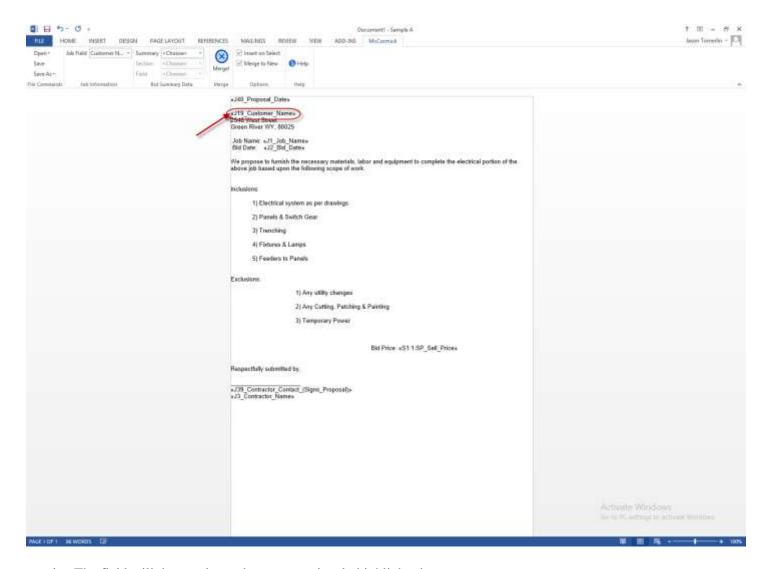




- 1. If the document has information that needs to be changed, highlight it;
- 2. Click the pull-down for the Job Field;
- 3. Choose and Click on a field from the list you want to use.

**NOTE:** The choices in this list are from whatever the User has already setup in Job Details.

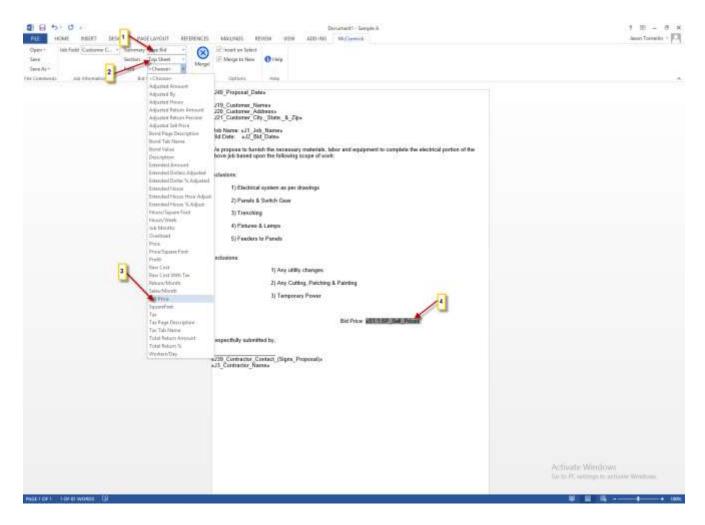




1. The field will then replace what was previously highlighted.

Additional Job Estimating Information (contd.) Editing Proposal (contd.)



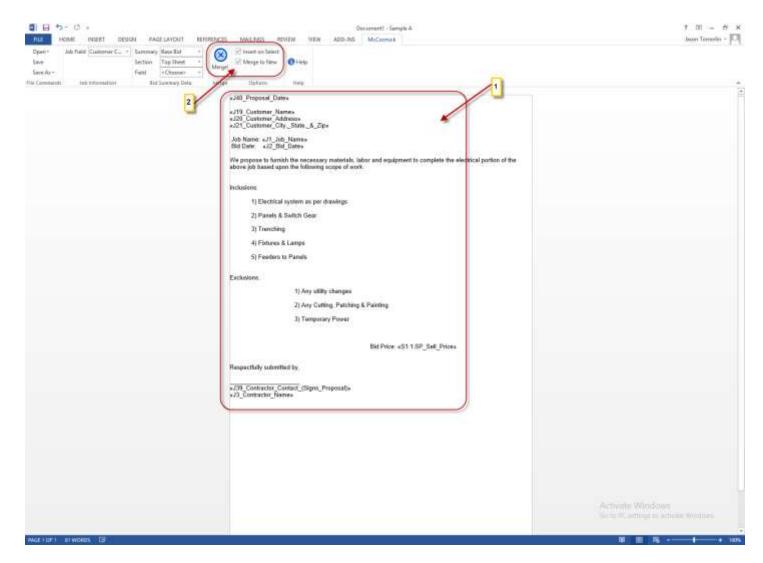


It's also possible to create fields for specific information from the job. In this instance, the User wants to be able to pull the Sell Price directly from the Bid Summary for this job. To begin, locate where on the document you want the data (in this case we highlighted an existing field).

- 1. Click the pull-down for Summary and choose the appropriate Summary to be used;
- 2. Click the pull-down for Section to choose where in the Summary you want to get the data;
- 3. Click on the pull-down for Field and Click on the specific field containing the data;
- **4.** The correct field will then be put at the previously selected location.

### Merging/Displaying/Saving Proposal



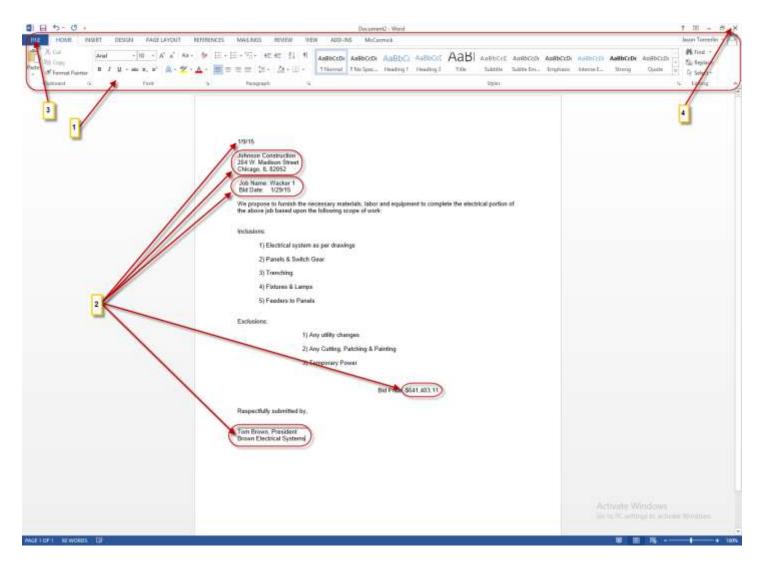


- 1. Once all the fields are created, the User may want to see/check the results;
- 2. To do this, **Click** on the blue Merge button.

<u>NOTE</u>: If Merge to New is NOT checked, the merge document created will be the final document and will have to be saved as such; i.e., a Word document or a System/Job Attachment (see below). If Merge to New IS checked, the User will be able to close the merge document created and return to the original document being edited.

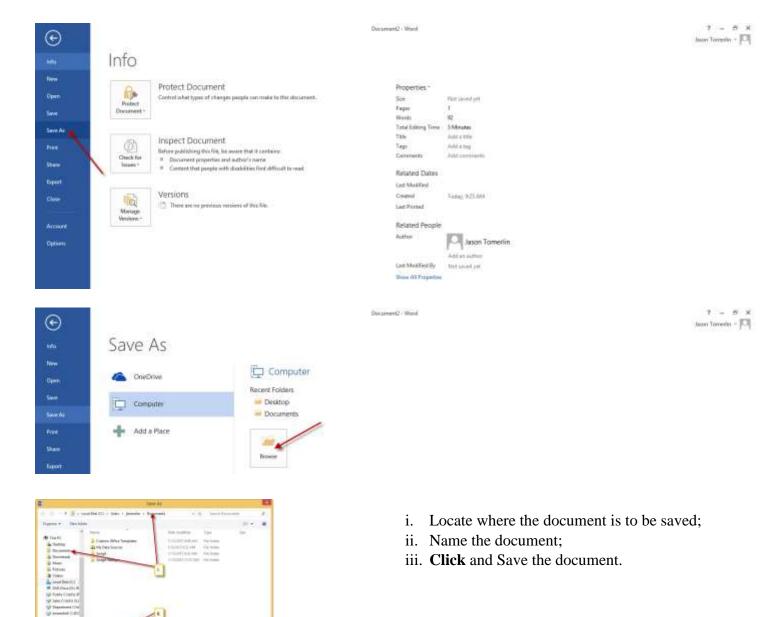
Additional Job Estimating Information (contd.) Merging/Displaying/Saving Proposal (contd.)





- 1. The resulting merge document will be presented as a Word document with the Word ribbon;
- 2. The previous merge fields will now be populated with the data they were assigned to retrieve;





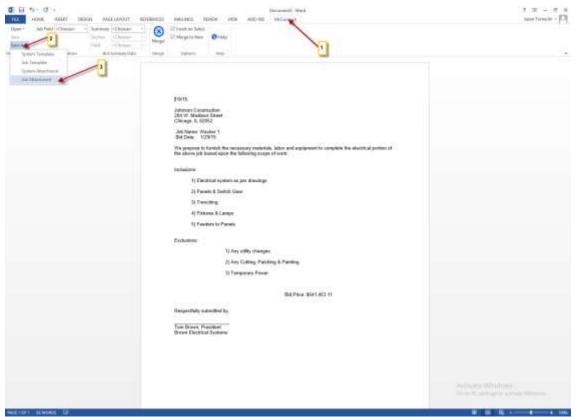
Additional Job Estimating Information (contd.) Merging/Displaying/Saving Proposal (contd.)

3. Click File and use the standard Word functions to save the document as shown in the above three images;





**4.** Click the X to close the document if needed. The choices are as shown above. The **Save** will do the same as the previous steps or can be used to save the document permanently to this job as a Job Attachment. The **Don't Save** will simply close the document.



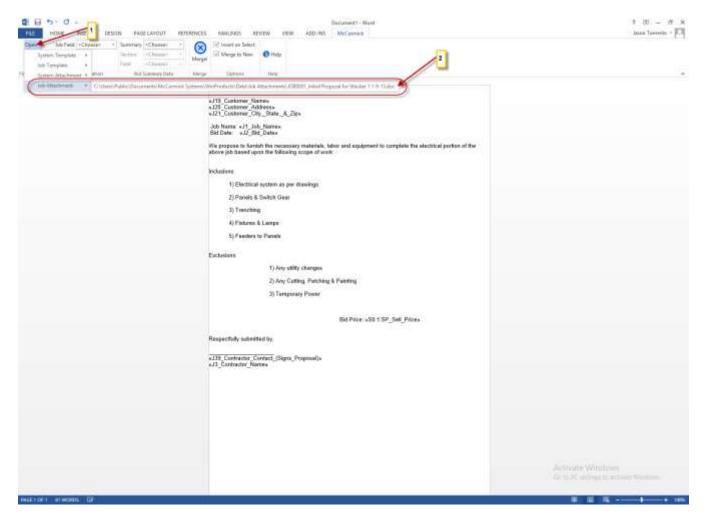
- 1. Click on the McCormick tab in the Word ribbon to bring up the McCormick Proposal ribbon;
- 2. Click on Save As;
- 3. Click on Job Attachment.



1. Name the document with a unique name so it can be identified within the job;



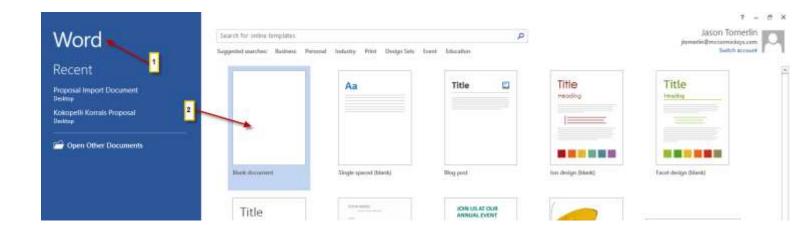
# 2. Click OK.



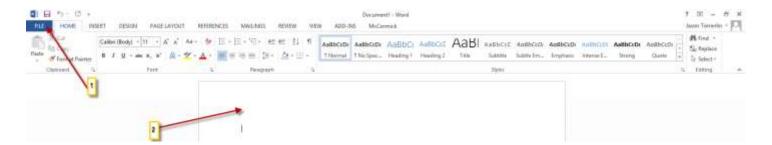
- 1. In the future, if the User needs to open this document, go to Proposal (as described earlier), Click on Open;
- 2. Clicking on Job Attachment will show the documents saved and the actual path to find them.

Additional Job Estimating Information (contd.) <a href="mailto:Importing Proposals">Importing Proposals</a>





- 1. Open Proposal as previously described, it will bring up Word;
- 2. Click and open Blank document.



- 1. Click FILE from the Word ribbon;
- 2. The User still has the blank document.



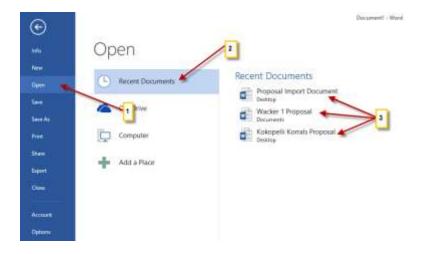
Jacon Torrection - D

7 - 5 K

Joan Torretin - 🖂



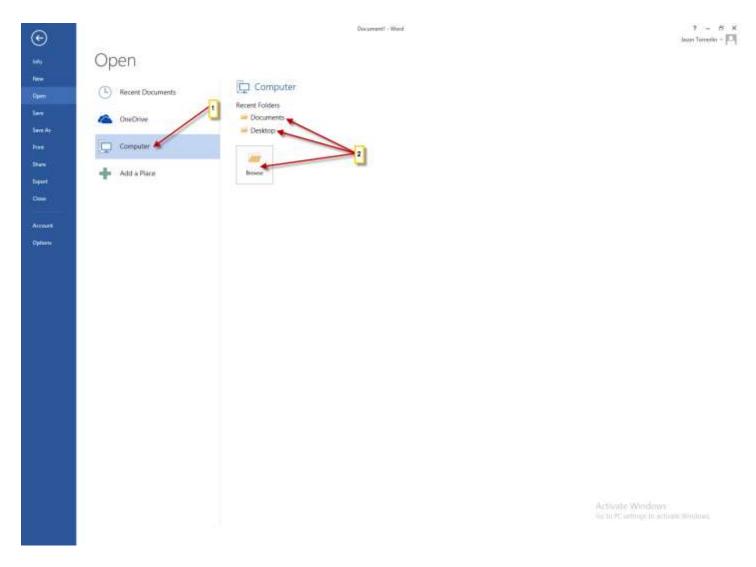
Click Open.



- 1. The **Open** screen opens up;
- 2. Find documents by clicking on **Recent Documents**;
- 3. The User does a **Click** on the document to be imported.

Additional Job Estimating Information (contd.) Importing Proposal (contd.)



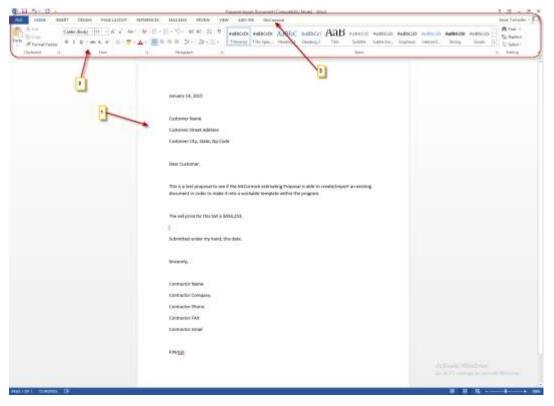


- 1. The User can also Click on Computer;
- 2. Choose from the options, such as Browse, to find any document and Click to import.





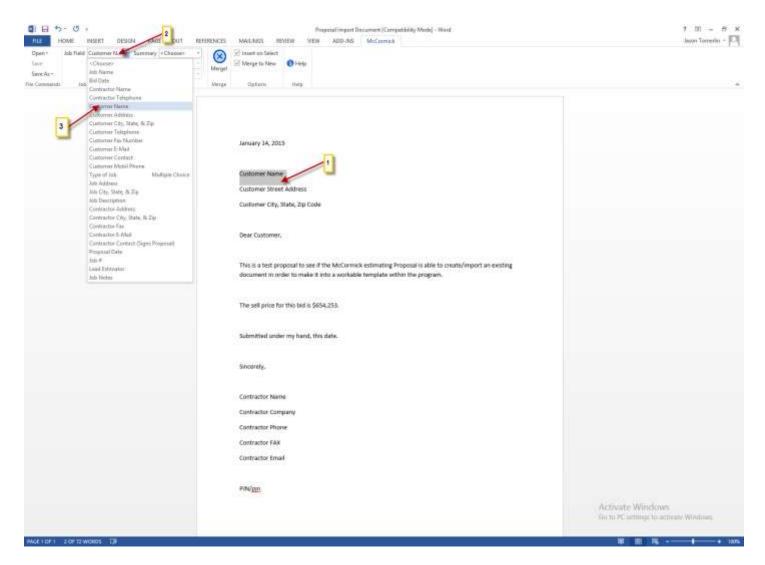
1. Outside documents can also be imported from the McCormick Proposal by doing a **Click** on the FILE tab and following the same steps as outlined above. Once the document is imported;



- **2.** The User is still in the Word ribbon;
- **3.** Click on the McCormick tab.

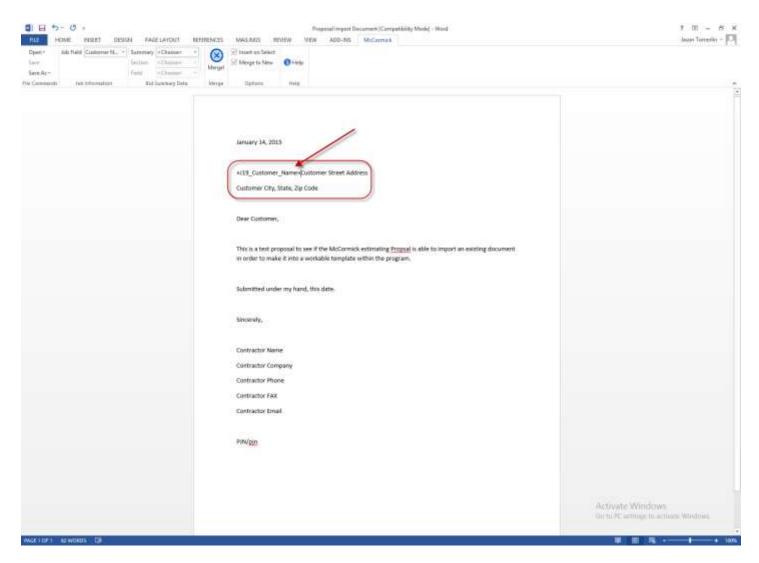
Additional Job Estimating Information (contd.) Importing Proposal (contd.)





- 1. Highlight any text to be replaced;
- 2. Click the Job Field to find the appropriate replacement field;
- 3. Click on the field to replace the text.

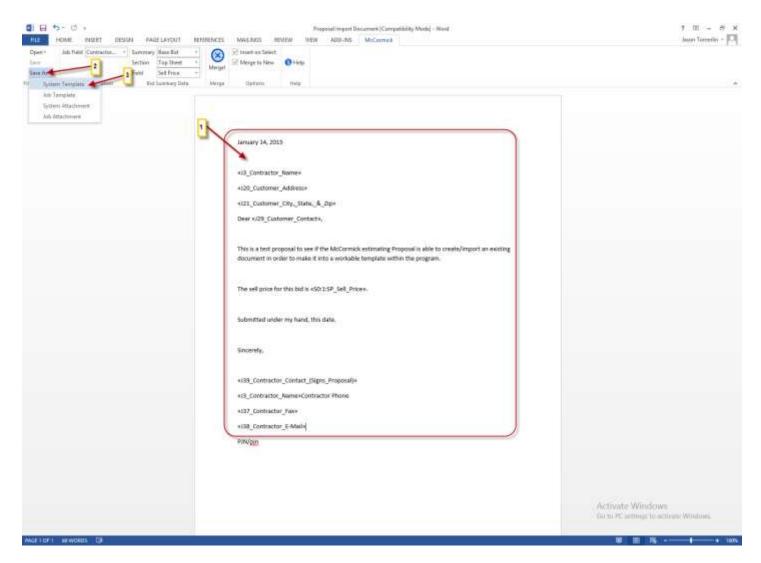




Notice the inserted field replaces the text and the following line is moved to the immediate right of the field. **Enter** to move the text to its correct position on the next line.

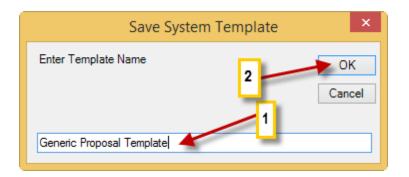
Additional Job Estimating Information (contd.) Importing Proposal (contd.)





- 1. Replace all text with appropriate merge fields;
- 2. Click to Save As:
- **3.** Choose how the new document is to be saved, such as a **System Template** if it is to be used for future jobs, or a Job Template if it's to be used for just this job.





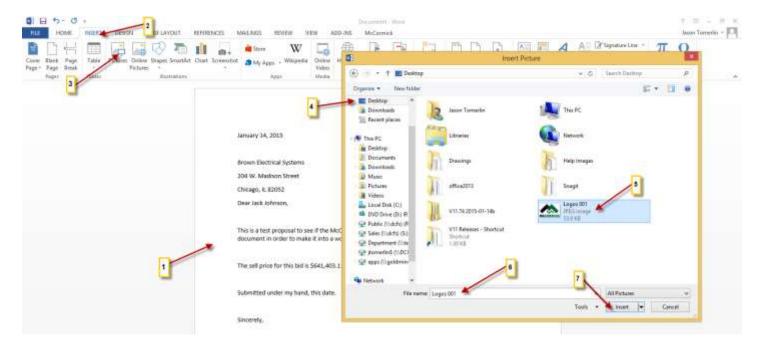
- 1. Give the document a name;
- 2. Click OK button.



- 1. In the future, the User can Click on Open;
- 2. Click on System Template;
- **3. Hover** over the template in the list;
- 4. Information concerning that template, such as who created it and when, will be displayed.

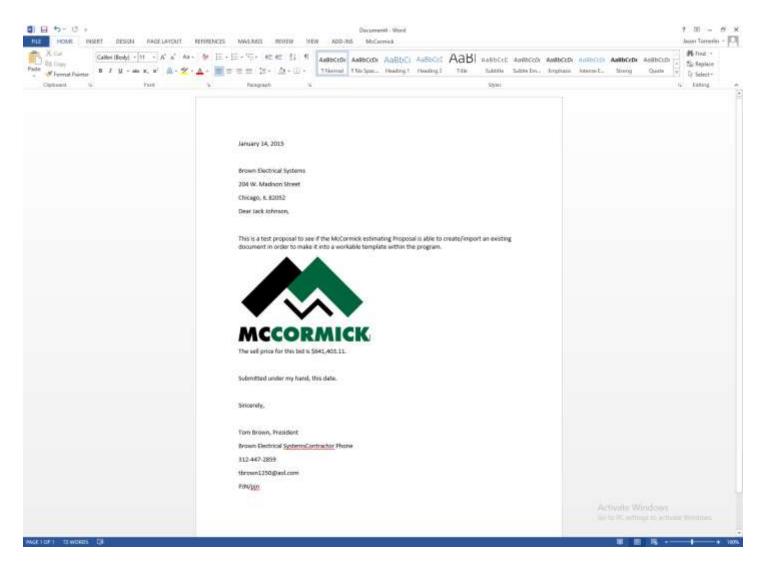
Additional Job Estimating Information (contd.) Importing Proposal (contd.)





- 1. Return to the Word ribbon;
- 2. Click Insert tab;
- 3. Click to choose what is desired to be inserted in the document, such as Pictures;
- **4. Browse** to the location of the desired pictures, etc.;
- 5. Click on the choice
- 6. Name the choice;
- 7. Click Insert.





The image will be inserted into the document at whatever location previously chosen and can be edit as to size and placement using Word functions.

# APPENDIX I EXERCISES/TECHNICAL SUPPORT INFO

#### Job 1

- 1. Start a New Job called Job 1
  - Paste the 3 Defaults + Bid Summary
- 2. Create Labels for Takeoff:

Bid Package

Column 2

Column 3

Column 4

Build Labels:



Column 5

**Base Bid** <none> <none> <none> <none> **3.** Takeoff the following Assemblies: 100 3 #12 1/2" EMT D/S STRAP 50 DUPLEX **STD** 4. **Extend:** Change "Summary #1" to "Base Bid" if not already done. Chang the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" Set the Material Filter to "<none>" Click the "Send to Summary" icon. 5. **Bid Summary: Base Bid Labor Hours** Journeyman/Wireman 100% **Taxes** Materials 6.5% 10% Overhead - All Profit - All 10% Mark-up Tax Yes Job 2 1. Start a New Job called Job 2 Paste the 3 Defaults + Bid Summary **Create Labels for Takeoff:** 2. Build Labels: Bid Package Column 2 Column 3 Column 4 Column 5 **Base Bid** <none> <none> <none> <none> **3.** Takeoff the following Assemblies: 2000 2 #12 1/2" EMT D/S STRAP



| 100 | DUPLEX STD           |
|-----|----------------------|
| 50  | 3W STD               |
| 10  | TEL, WALL 3/4" RISER |

# 4. Extend:

Change "Summary #1" to "Base Bid" if not already done.
Chang the Extension Report to "Edit Price 1 & Bid Labor by Cost Code"
Set the Material Filter to "<none>"
Click the "Send to Summary" icon.

| 5. Bid Summary:                | Base Bid |   |
|--------------------------------|----------|---|
| Labor Hours Journeyman/Wireman | 100%     |   |
| Taxes<br>Materials             | 6.5%     |   |
| Overhead – All                 | 10%      |   |
| Profit – All                   | 10%      | _ |
| Mark-up Tax                    | Yes      |   |



# Job 3

### 1. Start a New Job called Job 3

**Paste the 3 Defaults + Bid Summary** 

#### 2. Create Labels for Takeoff:

| Build Labels: | Bid Package | Column 2      | Column 3      | Column 4      | Column 5      |
|---------------|-------------|---------------|---------------|---------------|---------------|
|               | Base Bid    | <none></none> | <none></none> | <none></none> | <none></none> |

Alt 1 - Add

# 3. Takeoff the following Assemblies:

| Base Bid |                          | <u> Alt 1 - Add</u> |            |               |
|----------|--------------------------|---------------------|------------|---------------|
| 3000     | 2 #12 1/2" EMT D/S STRAP | 2000                | 3 #12 1/2" | EMT D/S STRAP |
| 200      | DUPLEX STD               | 20                  | GFI        | STD           |
| 150      | SP STD                   | 20                  | 3W         | STD           |
| 10       | TEL, WALL 3/4" RISER     | 10                  | TELE-POV   | WER POLE      |

### 4. Extend:

Change "Summary #1" to **Base Bid**, the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.

Change "Summary #2" to **Alt 1 – Add**, the Extension Report to "**Edit Price 1 & Bid Labor by Cost Code**" and the Material Filter to "**<none>**", if not already done, then click the "**Send to "Summary**" icon.

# 5. Bid Summary:

|                    | Base Bid | Alt 1 - Add |  |
|--------------------|----------|-------------|--|
| Labor Hours        |          |             |  |
| Journeyman/Wireman | 100%     | 100%        |  |
| Taxes              |          |             |  |
| Materials          | 6.5%     | 6.5%        |  |
|                    |          |             |  |
| Overhead – All     | 10%      | 10%         |  |
|                    |          |             |  |
| Profit – All       | 10%      | 10%         |  |
|                    |          |             |  |
| Mark-up Tax        | Yes      | Yes         |  |

### Job 4

- 1. Start a New Job called Job 4
  Paste the 3 Defaults + Bid Summary
- 2. Create Labels for Takeoff:



Build Labels: Bid Package Column 2 Column 3 Column 4 Column 5

Base Bid <none> Column 3 Column 4 Column 5 <none> <none>

CO 1 - Add

## 3. Takeoff the following Assemblies:

| Base Bid          |                          |
|-------------------|--------------------------|
| 3000              | 3 #12 1/2" EMT D/S STRAP |
| 30                | DUPLEX STD               |
| 12                | SP STD                   |
| 8                 | TEL, WALL 3/4" RISER     |
| 5                 | TELE-POWER POLE          |
|                   |                          |
| <b>CO 1 - Add</b> |                          |
| 750               | 3 #12 1/2" EMT D/S STRAP |
| 20                | DIDIEW CED               |

20 DUPLEX STD
 2 GFI STD
 5 SP STD
 6 3W STD

# 4. Extend:

Change "Summary #1" to **Base Bid**, the Extension Report to "**Edit Price 1 & Bid Labor by Cost Code"** and the Material Filter to "<none>", if not already done, then click the "**Send to** "**Summary**" icon.

Change "Summary #2" to **CO 1 – Add –** Change the Extension Report to "**Price 3 and NECA 3"** and the Material Filter to "**<none>**", if not already done, then click the "**Send to "Summary**" icon.

# 5. Bid Summary:

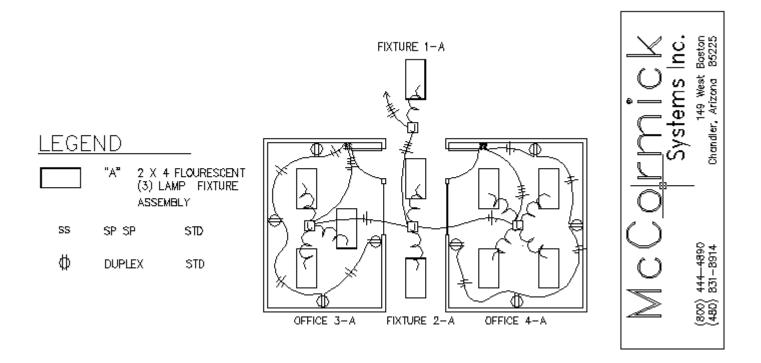
|                    | Base Bid | CO 1 - Add |
|--------------------|----------|------------|
| Labor Hours        |          |            |
| Journeyman/Wireman | 100%     |            |
| Foreman            |          | 100%       |
| Taxes              |          |            |
| Materials          | 6.5%     | 6.5%       |
|                    |          |            |
| Overhead – All     | 15%      | 15%        |
|                    |          |            |
| Profit – All       | 25%      | 25%        |
|                    |          |            |
| Mark-up Tax        | Yes      | Yes        |
|                    |          |            |



**Build Assemblies** 

Diagram

**Build Assemblies Part A** 



Create a new job: Build Assemblies

Paste the 3 Defaults + Bid Summary



Build Labels:Bid Package<br/>Base BidAreas<br/>OfficesColumn 3<br/><none>Column 4<br/><none>Column 5<br/><none>

Alt. 1 - Add Conf/Emerg
Alt. 2 - Add Service
CO 1 - Add Panel/Feeders

CO 2 - Add

**Modify the "FIXTURE A"** Job Assembly to have the following ByProducts:

1 - "FIXTURE A" Job Item

1 – "2X4 TROFFER 3 LAMP" assembly

- Build a "FIXTURE 1-A" Job Assembly at line 100080 using 1 "FIXTURE A" Job Assembly: Modify the quantities of the following ByProducts as shown: 1 "4/S BOX 1-1/2" DEEP", 1 "4/S BLANK COVER", and 1 "MISC. BOX HANGER".
- Build a "FIXTURE 2-A" Job Assembly at line 100081 using 2 "FIXTURE A" Job Assemblies: Modify the quantities of the following ByProducts as shown: 1 "4/S BOX 1-1/2" DEEP", 1 "4/S BLANK COVER", and 1 "MISC. BOX HANGER".
- Build a "FIXTURE 3-A" Job Assembly at line 100082 using 3 "FIXTURE A" Job Assemblies: Modify the quantities of the following ByProducts as shown: 1 "4/S BOX 1-1/2" DEEP", 1 "4/S BLANK COVER", and 1 "MISC. BOX HANGER".
- Build a "FIXTURE 4-A" Job Assembly at line 100083 using 4 "FIXTURE A" Job Assemblies: Modify the quantities of the following ByProducts as shown: 1 "4/S BOX 1-1/2" DEEP", 1 "4/S BLANK COVER", and 1 "MISC. BOX HANGER".
- Build an "OFFICE 3-A" Job Assembly at line 100084 using 1 "FIXTURE 3-A" Job Assembly.

  Replace the "4/S BOX 1-1/2" DEEP" with a "4/S BOX 2-1/8" DEEP".
- Build an "OFFICE 4-A" Job Assembly at line 100085 using 1 "FIXTURE 4-A" Job Assembly. Replace the "4/S BOX 1-1/2" DEEP" with a "4/S BOX 2-1/8" DEEP".

Add 1 – "SP SP STD" Switch Assembly to the "OFFICE 3A" and "OFFICE 4A" Job Assemblies

Add 15 - "5 #12 1/2" EMT D/S STRAP" Branch Assemblies to "OFFICE 3A" and "OFFICE 4A" Job Assemblies

Add 4 - "DUPLEX STD" Receptacle Assemblies to "OFFICE 3A" and "OFFICE 4A" Job Assemblies

Add 65 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies to "OFFICE 3A" and "OFFICE 4A" Job Assemblies

Use Labels: Base Bid Offices <none> <none> <none>

**Takeoff** 6 – "OFFICE 3-A" Job Assemblies by using the count button and moving off the Assembly.

**Takeoff 10 – "OFFICE 4-A"** Job Assemblies by entering the count and moving off the Assembly.

**Takeoff** 5 – "OFFICE 4-A" Job Assemblies by entering the count and clicking the enter key.



#### **Build Assemblies (contd.):**

**Modify the "FIXTURE B"** Job Assembly to have the following ByProducts:

- 1 "FIXTURE B" Job Item
- 1 "REC CAN, SMALL INCAND" Fixture Assembly

Modify the Use the "Control/Insert" feature to re-name the "FIXTURE C" to a "FIXTURE EM" Job Assembly.

The "FIXTURE EM" Job Assembly shall have the following ByProducts:

- 1 "FIXTURE EM" Job Item
- 1 "EMERGENCY LT, 2HD" Fixture Assembly

**Modify the** Use the "Control/Insert" feature to re-name the "FIXTURE D" to a "FIXTURE X" Job Assembly.

The "FIXTURE X" Job Assembly shall have the following ByProducts:

- 1 "FIXTURE X" Job Item
- 1 "EXIT LIGHT, LED NI-CAD" Fixture Assembly

Build a "CONFERENCE ROOM" Job Assembly at line 100086 using 8 - "FIXTURE B" Job Assemblies.

The ByProducts should have 8 - "FIXTURE B" Job Assembly ByProducts plus –

Add 48 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies to the "CONFERENCE ROOM" Job Assembly.

Add 1 "1000W 1P DIMMER" Switch Assembly to the "CONFERENCE ROOM" Job Assembly.

Add 20 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies to the "CONFERENCE ROOM" Job Assembly.

Add 4 – "DUPLEX STD" Receptacle Assemblies to the "CONFERENCE ROOM" Job Assembly.

**Add 1 – "GFI** STD" Receptacle Assembly to the "CONFERENCE ROOM" Job Assembly.

Add 125 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies to the "CONFERENCE ROOM" Job Assembly.

Build an "EMERGENCY" Job Assembly at line 100087 using 1 - "FIXTURE EM" Job Assembly.

The ByProducts should have 1 - "FIXTURE EM" Job Assembly ByProducts plus -

Add 20 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies to the "EMERGENCY" Job Assembly.

Build an "EXIT" Job Assembly at line 100088 using 1 - "FIXTURE X" Job Assembly.

The ByProducts should have 1 – "FIXTURE X" Job Assembly ByProducts plus –

Add 50 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies to the "EXIT" Job Assembly.

Use Labels: Base Bid Conf/Emerg <none> <none> <none>

**Takeoff 2 – "CONFERENCE ROOM"** Job Assemblies by entering the count and clicking the enter key.

**Takeoff 6 – "EMERGENCY"** Job Assemblies by entering the count and clicking the enter key.

**Takeoff 4 – "EXIT"** Job Assemblies by entering the count and clicking the enter key.

Use the "Control/Insert" feature to re-name the panels and their ByProducts as follows. (See the "Build Panels" **Workspace** button on page "Fix/Dev/House" or the "Equipment" page.)



```
Modify the 100101 "PANEL 1" Assembly and its ByProduct to "PANEL MDP". Modify the 100102 "PANEL 2" Assembly and its ByProduct to "PANEL LP-1". Modify the 100103 "PANEL 3" Assembly and its ByProduct to "PANEL LP-2". Modify the 100104 "PANEL 4" Assembly and its ByProduct to "PANEL LP-3". Modify the 100105 "PANEL 5" Assembly and its ByProduct to "PANEL PP-1". Modify the 100106 "PANEL 6" Assembly and its ByProduct to "PANEL PP-2". Modify the 100107 "PANEL 7" Assembly and its ByProduct to "PANEL PP-3".
```

Use the "Control/Insert" feature to re-name the feeders and their ByProducts as follows. (See the "Build Feeders" **Workspace** button on page "Feeder, EMT" or any of the "Feeder" pages.)

```
Modify the 100201 "FEEDER 1" Assembly and its ByProduct to "FEEDER MDP-2000A". Modify the 100202 "FEEDER 2" Assembly and its ByProduct to "FEEDER LP1-225A". Modify the 100203 "FEEDER 3" Assembly and its ByProduct to "FEEDER LP2-400A". Modify the 100204 "FEEDER 4" Assembly and its ByProduct to "FEEDER LP3-600A". Modify the 100205 "FEEDER 5" Assembly and its ByProduct to "FEEDER PP1-400A". Modify the 100206 "FEEDER 6" Assembly and its ByProduct to "FEEDER PP2-600A". Modify the 100207 "FEEDER 7" Assembly and its ByProduct to "FEEDER PP3-600A".
```

Modify the Main Distribution Panel and Metering Job Assembly "PANEL MDP" at Line 100101 using the "PANEL MDP" ByProduct and a "2000 AMP MDP (SERVICE)" Assembly

Modify the quantities of the following ByProducts in the "PANEL MDP" Job Assembly as shown:

```
12 - "600A CIRCUIT TERM" ByProducts
8 - "400A CIRCUIT TERM" ByProducts
16 - "230A CIRCUIT TERM" ByProducts
```

Modify the Feeder Job Assembly "FEEDER MDP 2000A" at Line 100201 using the "FEEDER MDP 2000A" ByProduct and adding the ByProducts from the following Assemblies

| ADD | 6 - "4 #400 & 1 #3 3" PVC UG CONSTANT" Assemblies with 6 Constants                             |
|-----|--|
|     | REPLACE BYPRODUCT 6 - "3 THHN CU STRANDED" wire items with 120 Constants in the                |
|     | "FEEDER MDP 2000A" Job Assembly  |
|     | WITH 6 - "250 THHN CU STRANDED" wire Items with Constants of 120 in the "FEEDER MDP 2000A" Job |
|     | Assembly   |
|     |  |

| <b>Use Labels:</b> | Base Bid | Service | <none></none>                            | <none></none> | <none></none>                                   |
|--------------------|----------|---------|--|---------------|---|
| Takeoff<br>Takeoff |          |         | oly by entering the<br>Job Assembly by e | ,             | g the enter key.<br>and clicking the enter key. |

# **Build Assemblies (contd.):**

Modify the Job Assembly "PANEL LP-1" at Line 100102 using the existing "PANEL LP-1" ByProduct and a "200/42 120/208V PNL 3PH MCB" Panel Assembly with ByProducts added as follows:

```
30 - "20A WIRE TERMINATION" Items
```

Modify the Job Assembly "PANEL LP-2" at Line 100103 using the existing "PANEL LP-2" ByProduct and a "400/36 120/208V PNL 3PH MCB" Panel Assembly with ByProducts added as follows:



#### 42 - "20A WIRE TERMINATION" Items

Modify the Job Assembly "PANEL LP-3" at Line 100104 using the existing "PANEL LP-3" ByProduct and a "600/40 120/208V PNL 3PH MCB" Panel Assembly with ByProducts added as follows:

#### 42 - "20A WIRE TERMINATION" Items

**Modify** the Job Assembly "PANEL PP-1" at Line 100105 using the existing "PANEL PP-1" ByProduct and a "400/36 480V PNL 3PH MLO" Panel Assembly with ByProducts added as follows:

- 4 "60A 4 WIRE TERMINATION" Assemblies
- 2 "100A 4 WIRE CIRCUIT TERM" Assemblies

Modify the Job Assembly "PANEL PP-2" at Line 100106 using the existing "PANEL PP-2" ByProduct and a "600/40 480V PNL 3PH MLO" Panel Assembly with ByProducts added as follows:

- 4 "100A 4 WIRE CIRCUIT TERM" Assemblies
- 2 "200A 4 WIRE CIRCUIT TERM" Assemblies

**Modify** the Job Assembly "PANEL PP-3" at Line 100107 using the existing "PANEL PP-3" ByProduct and a "600/40 480V PNL 3PH MLO" Panel Assembly with ByProducts added as follows:

- 4 "100A 4 WIRE CIRCUIT TERM" Assemblies
- 2 "200A 4 WIRE CIRCUIT TERM" Assemblies

Modify the Feeder Job Assembly "FEEDER LP1-225A" at Line 100202 using the "FEEDER LP1-225A" ByProduct and the ByProducts from the following Assembly.

Add 1 – "4#4/0&1#4 2 1/2" EMT S/S B/MIN CONST" Feeder Assembly with Constants to the "FEEDER LP1-225A" Job Assembly.

Modify the Feeder Job Assembly "FEEDER LP2-400A" at Line 100203 using the "FEEDER LP2-400A" ByProduct and the ByProducts from the following Assembly.

Add 1 – "4#500 &1#3 3" EMT S/S B/MIN CONST" Feeder Assembly with Constants to the "FEEDER LP2-400A" Job Assembly.

Modify the Feeder Job Assembly "FEEDER LP3-600A" at Line 100204 using the "FEEDER LP3-600A" ByProduct and the ByProducts from the following Assembly.

- Add 2 "4#350&1#3 2 1/2" EMT S/S B/MIN CONST" Feeder Assemblies with 2 Constants to the "FEEDER LP3-600A" Job Assembly.
- Replace 2 "3 THHN CU STRANDED" Wire Items in the "FEEDER LP3-600A" Job Assembly
  With 2 "1 THHN CU STRANDED" Wire Items with 30 Constants in the "FEEDER LP3-600A" Job Assembly.

Modify the Feeder Job Assembly "FEEDER PP1-400A" at Line 100205 using the "FEEDER PP1-400A" ByProduct and the ByProducts from the following Assembly.



Add 1 – "FEEDER LP2-400A" Job Assembly to the "FEEDER PP1-400A" Job Assembly and remove the "FEEDER LP2-400A" ByProduct.

Modify the Feeder Job Assembly "FEEDER PP2-600A" at Line 100206 using the "FEEDER PP2-600A" ByProduct and the ByProducts from the following Assembly.

Add 1 – "FEEDER LP3-600A" Job Assembly to the "FEEDER PP2-600A" Job Assembly and remove the "FEEDER LP3-600A" ByProduct.

Modify the Feeder Job Assembly "FEEDER PP3-600A" at Line 100207 using the "FEEDER PP3-600A" ByProduct and the ByProducts from the following Assembly.

Add 1 – "FEEDER LP3-600A" Job Assembly to the "FEEDER PP3-600A" Job Assembly and remove the "FEEDER LP3-600A" ByProduct.

| Use Labels:     | Base Bid     | Panels/Feeders             | <none></none>      | <none></none>     | <none></none> |
|-----------------|--------------|----------------------------|--------------------|-------------------|---------------|
| Takeoff 1 – "Pa | ANEL LP1" Jo | b Assembly by entering the | count and clicki   | ng the enter key. |               |
| Takeoff 1 – "Pa | ANEL LP2" Jo | b Assembly by entering the | count and clicki   | ng the enter key. |               |
| Takeoff 1 – "Pa | ANEL LP3" Jo | b Assembly by entering the | count and clicki   | ng the enter key. |               |
| Takeoff 1 – "Pa | ANEL PP1" Jo | b Assembly by entering the | count and clicking | ng the enter key. |               |
| Takeoff 1 – "Pa | ANEL PP2" Jo | b Assembly by entering the | count and clicking | ng the enter key. |               |
| Takeoff 1 – "Pa | ANEL PP3" Jo | b Assembly by entering the | count and clicking | ng the enter key. |               |
|                 |              |                            |                    |                   |               |

### **Build Assemblies (contd.):**

**Takeoff 125** – "**FEEDER LP1-225A**" Job Assemblies by entering the count and clicking the enter key.

**Takeoff 135** – "**FEEDER LP2-400A**" Job Assemblies by entering the count and clicking the enter key.

Takeoff 95 – "FEEDER LP3-600A" Job Assemblies by entering the count and hitting the enter key.

**Takeoff 65 – "FEEDER PP1-400A"** Job Assemblies by entering the count and hitting the enter key.

Takeoff 105 – "FEEDER PP2-600A" Job Assemblies by entering the count and hitting the enter key.

**Takeoff 75 – "FEEDER PP3-600A"** Job Assemblies by entering the count and hitting the enter key.

#### For Future Reference only:

# Extend

Change "Summary #1" to **Base Bid**, the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.



Change "Summary #2" to **Offices**, the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.

Change "Summary #3" to Conf/Emerg, the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.

Change "Summary #4" to Service, the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.

Change "Summary #5" to Panels/Feeders, the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.

| Bid | <b>Summary</b> |
|-----|----------------|
|-----|----------------|

| Tax:   | Material                   | 6.5%       |
|--------|----------------------------|------------|
|        | Quotes                     | 6.5%       |
| Labor: | Foreman                    | 10%        |
|        | Journeyman                 | <b>70%</b> |
|        | 5 <sup>th</sup> Apprentice | <b>20%</b> |
|        | Foreman                    | 10%        |
|        |                            | 4=0/       |

| Overhead: | 15% |
|-----------|-----|
| Profit:   | 25% |

| Profit:         | 25%            |         |          |    |           |     |
|-----------------|----------------|---------|----------|----|-----------|-----|
| <b>Quotes:</b>  | Offices        | Fixture | es       | \$ | 5,000.00  |     |
|                 | Conf/Emerg     | Fixture | es       | \$ | 2,000.00  |     |
|                 | All            |         |          | \$ | 7,000.00  |     |
|                 | Service        | Switch  | igear    | \$ | 10,000.00 |     |
|                 | Panels/Feeders | Switch  | igear    | \$ | 5,000.00  |     |
|                 | All            |         | -        | \$ | 15,000.00 |     |
| <b>SubCont:</b> | Saw Cut        | Unit:   | \$2.50   |    | Mult:     | 200 |
|                 | Trenching      | Unit:   | \$25.00  |    | Mult:     | 100 |
| DJE:            | Permit/Fees    | Unit:   | \$350.00 | )  | Mult:     | 1   |



#### **McCormick Suites**

1. Start a New Job called "McCormick Suites" and Paste the Defaults including Bid Summary.

 Bid Package
 Sheets
 Column 3Column 4Column 5

 1. Base Bid E-1- Power
 <none>
 <none>

1. **E-2** – **Lighting** 

2. E-3 – Voice/Data/Fire

3. **Takeoff Specifications:** Wiring shall be THHN Stranded in EMT with D/S fittings (D/S STRAP) with the hash marks showing the number of wires unless shown otherwise. Standard grade devices. Run the feeder in EMT overhead. "**PANEL A**" is a "400/42 480V PNL 3PH MCB", and "**PANEL B**" is a "200/42 120/208V PNL 3PH MCB". **DO NOT** "**include**" or "*read*" anything extra into the prints such as grounds, etc. Do your takeoff as "*squared off*". Fixtures will be (A) 2X4 TROFFER 3 LAMP, (A1) 2X4 TROFFER 3 LAMP, (B) RECESSED CAN, SMALL INCAND, (C) REC CAN WALL WASHER, SML, and (X) EXIT LIGHT, LED NI-CAD. The dimmers are a 2000W 1P DIMMER assembly. The FACP is a 4 Zone Panel.

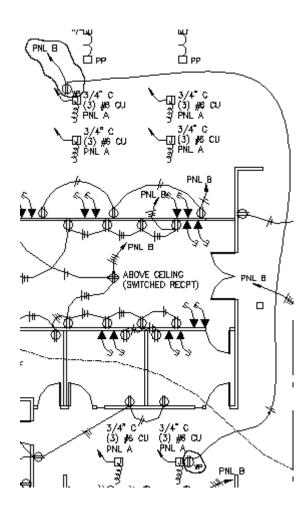
| 5. Bid Summary:                   | E-1 – Power | E-2 – Lighting | E-3 –Voice/Data/Fire |
|-----------------------------------|-------------|----------------|----------------------|
| Foreman                           | 10%         | 10%            | 10%                  |
| Journeyman/Wireman                | 70%         | 70%            | 70%                  |
| 5 <sup>TH</sup> period Apprentice | 20%         | 20%            | 20%                  |
| <b>Supplier Quotes</b>            |             | •              | •                    |
| Switchgear                        | \$1,775     |                |                      |
| Fixtures                          |             | \$4,010        |                      |
| Fire Alarm                        |             |                | \$1,200              |
| Data Equipment                    |             |                | \$3,500              |
| Voice Equipment                   |             |                | \$1,800              |
| Subcontractors                    |             | •              | •                    |
| Core Drill                        | \$200       |                |                      |
| Direct Job Expense                |             |                | •                    |
| Telephone                         | \$40        | \$40           | \$40                 |
| Permits                           | \$125       | \$125          | \$125                |
| Taxes                             |             |                | •                    |
| Materials                         | 6.5%        | 6.5%           | 6.5%                 |
| Quotes                            | 6.5%        | 6.5%           | 6.5%                 |
| Overhead                          |             |                |                      |
| Material                          | 8%          | 8%             | 8%                   |
| Labor                             | 14%         | 14%            | 14%                  |
| Supplier Quotes                   | 9%          | 9%             | 9%                   |
| Subcontractors                    | 9%          | 9%             | 9%                   |
| DJE                               | 5%          | 5%             | 5%                   |
| Profit                            |             |                |                      |
| Material                          | 5%          | 5%             | 5%                   |
| Labor                             | 7%          | 7%             | 7%                   |
| Supplier Quotes                   | 4%          | 4%             | 4%                   |
| Subcontractors                    | 4%          | 4%             | 4%                   |
| DJE                               | 8%          | 8%             | 8%                   |
| Mark-up Tax                       | Yes         | Yes            | Yes                  |

<sup>4.</sup> Extension Report "Edit Price 1 & Bid Labor by Cost Code". Material Filter "<none>". "Send to Summary" icon

# **McCormick Suites (contd.)**



# Addendum # 1



Add WP GFI receptacles adjacent to the roof top units as shown.

Specifications for the Change Orders for: Job Name: Existing Job "McCormick Suites"

**NOTE:** Use your labels and as many assemblies as possible.

| Add Labels:    | Bid Package | Sheets       | Column 3      | Column 4      | Column 5      |
|----------------|-------------|--------------|---------------|---------------|---------------|
| (The Boldface) | Base Bid    | E-1 Power    | <none></none> | <none></none> | <none></none> |
|                | CO 1 - Add  | E-2 Lighting |               |               |               |



CO 2 - Add E-3 Voice/Data/Fire

CO 3 - Add CO

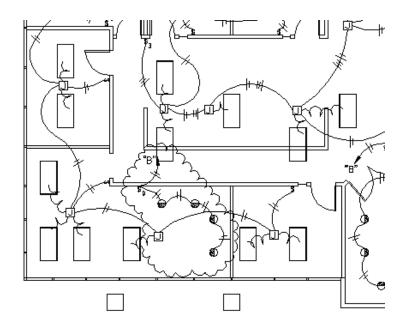
CO 4 - Add

CO 5 - Add

CO 6 - Add

# **Change Order 1**

Use Labels: Bid Package Sheets CO 1 - Add CO CO COlumn 3 Column 4 Column 5 COnne>



Add four type "C" (REC CAN WALL WASHER, SML) fixtures and a 600 Watt dimmer in place of the two 2x4 recessed lay-in (Type A) fixtures and the SP switch.

### McCormick Suites CO 2: Add conference room

Use Labels:Bid Package<br/>CO 2 - AddSheets<br/>COColumn 3<br/><none>Column 4<br/><none>Column 5<br/><none>

Change Order #2 is an additional conference room on the west side between the equipment room and the existing space

- 3 "FIXTURE A" Job Assemblies
- **6 "FIXTURE B"** Job Assemblies
- 2 "FIXTURE C" Job Assemblies
- 1 "SP STD" Switch Assembly
- 6 "TEL, WALL/3/4' RISER" Telephone riser Assemblies
- 4 "DOUBLE DUPLEX STD" Receptacle Assemblies

# **Standard Training Manual - Electrical**



2 – "1000W 1P DIMMER" Dimmer Assemblies

135 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies

45 – "4 #12 1/2" EMT D/S STRAP" Branch Assemblies

McCormick Suites CO 3: Add 4 Tele-Power poles.

 Use Labels:
 Bid Package
 Sheets
 Column 3
 Column 4
 Column 5

CO 3 - Add CO <none> <none> <none>

Change Order #3 is four additional power poles in the existing training area.

**4 – "TELE-POWER POLE"** Power Pole Assemblies

**85** – "3 #12 1/2" EMT D/S STRAP" Branch Assemblies

McCormick Suites CO 4: Add a 75 KW Generator.

 Use Labels:
 Bid Package
 Sheets
 Column 3
 Column 4
 Column 5

CO 4 - Add CO <none> <none>

Change Order #4 is a 75 KW Generator with transfer switch and circuitry.

1 – "75 KW GENERATOR" Assembly

1 - "260A AUTO-TRANSFER SW 600V 3P DT N1" Assembly

1 - "125A 600V 3PH 1 F SW" Assembly

6 - "1/2 MACHINE BOLT ANCH" Item

6 - "1/2-13 X 2 CAP SCREW" Item

125 – "4#2/0 & 1#6 2" EMT S/S B/MIN CONST" Feeder Conduit Assemblies

20 - "4#2/0 & 1#6 2" EMT S/S B/MIN CONST" Feeder Conduit Assemblies

McCormick Suites CO 5: Add exterior lighting.

 Use Labels:
 Bid Package
 Sheets
 Column 3
 Column 4
 Column 5

CO 5 - Add CO <none> <none> <none>

Change Order #5 is additional exterior lighting.

1 – "208/277V ALR PHOTOCONTROL 1/2" Assembly

1 - "208/277V 24HR DPST 40A TIME CLOCK" Assembly

**450 – "3 #12 1/2" EMT D/S STRAP"** Branch Assemblies

10 - "FIXTURE D" Job Assemblies with a "FIXTURE D" Job Item and a "WALL PACK 250W" HPS" Assembly as ByProducts

McCormick Suites CO 6: Add 500 square feet of TI.

Use Labels: Bid Package Sheets Column 3 Column 4 Column 5



CO 6 - Add CO <none> <none> <none>

**500 – "TI POWER, NORMAL"** Tenant Infill (Improvement) Assemblies **500 – "TI LIGHTING, NORMAL"** Tenant Infill (Improvement) Assemblies



#### **Extend**

Rename the Additional summaries to the Change Order Summaries shown below.

- CO 1 Add Change the Extension Report to "Price 3 and NECA 3" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.
- CO 2 Add Change the Extension Report to "Price 3 and NECA 3" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.
- CO 3- Add Change the Extension Report to "Price 3 and NECA 3" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.
- CO 4 Add Change the Extension Report to "Price 3 and NECA 3" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.
- CO 5 Add Change the Extension Report to "Price 3 and NECA 3" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.
- CO 6- Add Change the Extension Report to "Price 3 and NECA 3" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.

# **Bid Summary Data:**

**Distribute Labor Hours:** Foreman 50%

J/Mn Wir 50%

Tax: Material is taxed 6.5%

Supplier Ouotes are taxed 6.5%

Labor is not taxed Do not markup tax

| Mark-ups: | Materials | Overhead 8% | Profit <b>25%</b> |
|-----------|-----------|-------------|-------------------|
|           | T 1       | 0 1 1140/   | D C . 350/        |

Labor Overhead 14% Profit 25% Supplier Quotes Overhead 9% Profit 25%

| CO 1 Supplier Quotes: | Fixture A | \$<br>65.00 |
|-----------------------|-----------|-------------|
|                       |           |             |

Fixture C **\$ 76.65** 

CO 2 Supplier Quotes: Fixtures \$ 425.00

CO 3 Supplier Quotes: Misc. \$ 300.00

CO 4 Supplier Ouotes: Generator Package \$35,000.00

CO 5 Supplier Quotes: Fixtures \$ 2,500.00

CO 6 Supplier Quotes: Fixtures \$ 150.00

**Trade Commercial Offices** 

Add new Job:

NOTE: Use your labels and as many assemblies as possible.

# **Standard Training Manual - Electrical**



<none>

**Job Name:** Trade Commercial Offices

**Date:** Today's date **Type of Job:** Commercial

**Elevations:** Ceilings 8' 0" Floor to bottom of joists 12' 0"

Build Labels: <u>Bid Package</u> <u>Floors</u> <u>Systems</u> <u>Column 4</u> <u>Column 5</u>

Base Bid Floor 1 Outlet &Ltg. <none>
Floor 2 Pnl. & Feed

Floor 3 Bldg. Serv. Bldg. Ltg.

**Fixture Schedule:** (Create the following Fixture Job Assemblies using the ByProducts shown)

"FIXTURE A" – 1 "FIXTURE A" ByProduct and 1 "2X4 TROFFER 3 LAMP" Assembly.

"FIXTURE B" – 1 "FIXTURE B" ByProduct and 1 "REC CAN, SMALL INCAND" Assembly

"FIXTURE C" – 1 "FIXTURE C" ByProduct and 1 "REC CAN WALL WASHR, SML" Assembly

"FIXTURE D" – 1 "FIXTURE D" ByProduct and 1 "WALL PACK, 250W HPS " Assembly

"FIXTURE E" – 1 "FIXTURE E" ByProduct and 1 "EMERGENCY LT, 2HD" Assembly

"FIXTURE F" – 1 "FIXTURE F" ByProduct and 1 "1X4 SURFACE 2 LAMP" Assembly.

"FIXTURE X" – Use "Control/Insert" feature to rename "FIXTURE G" Assembly to a "FIXTURE X" Assembly with 1 "FIXTURE X" ByProduct and 1 "EXIT LIGHT, LED NI-CAD" Assembly

#### Office types:

Build a "TYPE A OFFICE" (10'x12') Job Assembly using the following:

- 3 "FIXTURE A" Job Assemblies change the ByProducts to have  $1 2 \frac{1}{8}$ " Deep box, 1 cover, and 1 box hanger
- 1 "SP SP STD" Switch Assemblies
- **4 "DUPLEX** STD" receptacle Assemblies
- 1 "TEL, WALL/3/4" RISER" Telephone Riser Assembly
- 85 "3 #12 1/2" EMT D/S STRAP" Branch Assemblies
- 15 "4 #12 1/2" EMT D/S STRAP" Branch Assemblies

**Build a "TYPE B OFFICE"** (10'x16') Job Assembly using the following:

- **4** "FIXTURE A" Job Assemblies change the ByProducts to have 1 21/8" Deep box, 1 cover, and 1 box hanger
- 1 "SP SP STD" Switch Assemblies
- **6 "DUPLEX STD"** Receptacle Assemblies
- 2 "TEL, WALL/3/4" RISER" Telephone Riser Assembly
- 155 "3 #12 1/2" EMT D/S STRAP" Branch Assemblies
- 15 "4 #12 1/2" EMT D/S STRAP" Branch Assemblies

**Trade Commercial Offices - Office types (contd.):** 

**Build a "CONFERENCE ROOM"** (12'x20') Job Assembly using the following:

- 4 "FIXTURE A" Job Assemblies change the ByProducts to have 2 2 1/8" Deep boxes, 2 covers, and 2 box hangers
- 6 "FIXTURE B" Job assemblies
- 2 "FIXTURE C" Job assemblies
- 1 "600W 1P DIMMER" Assembly
- 1 "1000W 1P DIMMER" Assembly
- 2 "3W STD" Switch Assemblies



```
6 - "DUPLEX
                    STD" Receptacle Assemblies
                 STD" Receptacle Assembly
  2 - "TEL, WALL/3/4" RISER" Telephone Riser Assembly
195 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies
 20 - "6 #12 1/2" EMT D/S STRAP" Branch Assemblies
Build an "OPEN OFFICE AREA" (25'x60') Job Assembly using the following:
 24 – "FIXTURE A" Job Assemblies change the ByProducts to have 8 – 2 1/8" Deep boxes, 8 covers, and 8 box hangers
  2 - "FIXTURE E" Job assemblies
  2 - "FIXTURE X" Job assemblies
                 STD" Switch Assemblies
  4 - "3W
  8 – "DUPLEX
                    STD" Receptacle Assemblies
  6 - "TEL, WALL/3/4" RISER" Telephone Riser Assembly
 10 - "TELE-POWER POLE" Tele-Power Pole Assemblies
195 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies
 50 - "6 #12 1/2" EMT D/S STRAP" Branch Assemblies
 30 - "7 #12 3/4" EMT D/S STRAP" Branch Assemblies
Build a "REST ROOM" (6'x10') Job Assembly using the following:
  2 - "FIXTURE A" Job Assemblies change the ByProducts to have 1 - 2 1/8" Deep box, 1 cover, and 1 box hanger
  1 – "FIXTURE E" Job assemblies
  1 - "SP SP
                  STD" Switch Assembly
                STD" Receptacle Assembly
  1 - Broan "673 6" BATH FAN" Assembly (Look in HVAC - Fan/Ventilating - Broan ventilating fans).
  1 - "20A 3' 3 W W/GRD INDOOR EQUIP CONN" Equipment Connection Assembly
 30 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies
 15 - "4 #12 1/2" EMT D/S STRAP" Branch Assemblies
Build a "HALLWAY" (5'x12') Job Assembly using the following:
  2 - "FIXTURE A" Job Assemblies change the ByProducts to have 2 - 2 1/8" Deep boxes, 2 covers, and 2 box hangers
  1 - "FIXTURE E" Job assemblies
  1 – "FIXTURE X" Job assemblies
  2 - "3W
                 STD" Switch Assemblies
                    STD" Receptacle Assemblies
  1 – "DUPLEX
 80 - "3 #12 1/2" EMT D/S STRAP" Branch Assemblies
Trade Commercial Offices - Office types (contd.):
Office Takeoffs: (Now that the Office assemblies are built you may take them off)
Use Labels:
               Base Bid
                               Floor 1
                                                      Outlet &Ltg.
                                                                              <none>
                                                                                             <none>
Floor #1 Includes:
```

**Takeoff 9 – "TYPE A OFFICE"** Job Assemblies **Takeoff 4 – "TYPE B OFFICE"** Job Assemblies

**Takeoff 2 – "CONFERENCE ROOM"** Job Assemblies

**Takeoff 2 – "OPEN OFFICE AREA"** Job Assemblies

**Takeoff 4 – "REST ROOM"** Job Assemblies

Takeoff 2 - "HALLWAY" Job Assemblies

# **Standard Training Manual - Electrical**



Use Labels: Base Bid Floor 2 Outlet &Ltg. <none> <none>

Floor #2 Includes:

Takeoff 10 - "TYPE A OFFICE" Job Assemblies

**Takeoff 4 – "TYPE B OFFICE"** Job Assemblies

**Takeoff 2 – "CONFERENCE ROOM"** Job Assemblies

**Takeoff 2 – "OPEN OFFICE AREA"** Job Assemblies

**Takeoff 4 – "REST ROOM"** Job Assemblies

**Takeoff 2 – "HALLWAY"** Job Assemblies

Use Labels: Base Bid Floor 3 Outlet &Ltg. <none> <none>

Floor #3 Includes:

**Takeoff 10 – "TYPE A OFFICE"** Job Assemblies

**Takeoff 4 – "TYPE B OFFICE"** Job Assemblies

**Takeoff 2 – "CONFERENCE ROOM"** Job Assemblies

**Takeoff 2 – "OPEN OFFICE AREA"** Job Assemblies

**Takeoff 4 – "REST ROOM"** Job Assemblies

**Takeoff 2 – "HALLWAY"** Job Assemblies



### Trade Commercial Offices - Transformers & Panels for floors:

Use the "Control/Insert" feature to re-name the panels and their ByProducts as follows. (See the "Build Panels" Workspace button on the page "Equipment" of Workspaces.)

Modify the 100101 "PANEL 1" Assembly and its ByProduct to "PANEL LP-1E".

Modify the 100102 "PANEL 2" Assembly and its ByProduct to "PANEL LP-1W".

Modify the 100103 "PANEL 3" Assembly and its ByProduct to "PANEL LP-2E".

Modify the 100104 "PANEL 4" Assembly and its ByProduct to "PANEL LP-2W".

Modify the 100105 "PANEL 5" Assembly and its ByProduct to "PANEL LP-3E".

Modify the 100106 "PANEL 6" Assembly and its ByProduct to "PANEL LP-3W".

Modify the 100107 "PANEL 7" Assembly and its ByProduct to "PANEL MDP".

Modify the 100108 "PANEL 8" Assembly and its ByProduct to "PANEL HVAC".

Modify the 100109 "PANEL 9" Assembly and its ByProduct to "PANEL BUILDING".

Modify the Job Assembly "PANEL LP-1E" at Line 100101 using the existing "PANEL LP-1E" ByProduct and a "200/36 120/208V PNL 3PH MCB" Panel Assembly with ByProducts as follows:

1 - "75 KVA TRANSF 3PH 480-120/208V FLR" Transformer Assembly

30 – "20A WIRE TERMINATION" Items

1 - " 1 1/4 GRC COUPLING" Assembly

Modify the Job Assembly "PANEL LP-1W" at Line 100102 using the existing "PANEL LP-1W" ByProduct and the ByProducts from the Job Panel Assembly "PANEL LP-1E". Delete the ByProduct "PANEL LP-1E" from this Assembly.

Modify the Job Assembly "PANEL LP-2E" at Line 100103 using the existing "PANEL LP-2E" ByProduct and the ByProducts from the Job Panel Assembly "PANEL LP-1E". Delete the ByProduct "PANEL LP-1E" from this Assembly.

Modify the Job Assembly "PANEL LP-2W" at Line 100104 using the existing "PANEL LP-2W" ByProduct and the ByProducts from the Job Panel Assembly "PANEL LP-1E". Delete the ByProduct "PANEL LP-1E" from this Assembly.

Modify the Job Assembly "PANEL LP-3E" at Line 100105 using the existing "PANEL LP-3E" ByProduct and the ByProducts from the Job Panel Assembly "PANEL LP-1E". Delete the ByProduct "PANEL LP-1E" from this Assembly.

Modify the Job Assembly "PANEL LP-3W" at Line 100106 using the existing "PANEL LP-3W" ByProduct and the ByProducts from the Job Panel Assembly "PANEL LP-1E". Delete the ByProduct "PANEL LP-1E" from this Assembly.

# Trade Commercial Offices - Transformer/Panel Takeoffs:

Use Labels: Base Bid Floor 1 Pnl. & Feed <none> <none>

**Takeoff 1 – "PANEL LP-1E"** Job Assembly



Takeoff 1 – "PANEL LP-1W" Job Assembly

Use Labels: Base Bid Floor 2 Pnl. & Feed <none> <none>

Takeoff 1 – "PANEL LP-2E" Job Assembly

Takeoff 1 - "PANEL LP-2W" Job Assembly

Use Labels: Base Bid Floor 3 Pnl. & Feed <none> <none>

**Takeoff 1 – "PANEL LP-3E"** Job Assembly

Takeoff 1 - "PANEL LP-3W" Job Assembly

# **Building Service:**

Modify the Main Distribution Panel and Metering Job Assembly "PANEL MDP" at Line 100107 using the "PANEL MDP" ByProduct and a "2000 AMP MDP (SERVICE)" Assembly.

**Modify** the quantities of the following ByProducts in the "PANEL MDP" Job Assembly as shown:

3 – "60A WIRE TERMINATION" ByProducts

24 - "100A CIRCUIT TERM" ByProducts

12 - "230A CIRCUIT TERM" ByProducts

48 - "400A CIRCUIT TERM" ByProducts

Use the "Control/Insert" feature to re-name the feeders and their ByProducts as follows. (See the "Build Feeders" Workspace button on page "Feeder, EMT, Constants, Strap/Conc" of Workspaces.)

Modify the 100201 "FEEDER 1" Assembly and its ByProduct to "FEEDER MDP-2000A".

Modify the 100202 "FEEDER 2" Assembly and its ByProduct to "FLOOR 1 EAST FEEDER".

Modify the 100203 "FEEDER 3" Assembly and its ByProduct to "FLOOR 1 WEST FEEDER".

Modify the 100204 "FEEDER 4" Assembly and its ByProduct to "FLOOR 2 EAST FEEDER".

Modify the 100205 "FEEDER 5" Assembly and its ByProduct to "FLOOR 2 WEST FEEDER".

Modify the 100206 "FEEDER 6" Assembly and its ByProduct to "FLOOR 3 EAST FEEDER".

Modify the 100207 "FEEDER 7" Assembly and its ByProduct to "FLOOR 3 WEST FEEDER".



## **Trade Commercial Offices - Building Service - (contd.):**

**Modify** the Job Assembly "PANEL HVAC" at Line 100108 using the existing "PANEL HVAC" ByProduct and the ByProducts from the following Items and Assemblies.

- 1 "400/28 480V PNL 3PH MLO" Panel Board Assembly
- **6** "**60A 3 WIRE TERMINATION**" Assemblies
- 20 "4#500 &1#3 3" EMT S/S B/MIN CONST" Feeder with Constants Assemblies

Modify the Job Assembly "PANEL BUILDING" at Line 100109 using the existing "PANEL BUILDING" ByProduct and the ByProducts from the following Items and Assemblies.

- 1 "45 KVA TRANSF 3PH 600-120/208V FLR" Transformer Assembly
- 1 "100/24 120/208V PNL 3PH MCB" Panel Board Assembly
- 8 "20A 4 WIRE TERMINATION" Assemblies
- 1 "1 GRC COUPLING" Assembly

Modify the Feeder Job Assembly "FEEDER MDP 2000A" at Line 100201 using the "FEEDER MDP 2000A" ByProduct and the ByProducts from the following Items and Assemblies.

- 1 "24X36 TRENCH/BACKFILL" Assemblies
- 6 "4 #400 & 1 #3 PVC UG CONSTANT" Assemblies with 6 Constants
  REPLACE BYPRODUCT 6 "3 THHN CU STRANDED" wire items with 120 Constants in the "FEEDER MDP 2000A" Job Assembly
  WITH 6 "250 THHN CU STRANDED" wire items with 120 Constants in the "FEEDER MDP 2000A" Job Assembly



### **Trade Commercial Offices - Transformer Feeders:**

Modify the Feeder Job Assembly "FLOOR 1 EAST FEEDER" at Line 100202 using the "FLOOR 1 EAST FEEDER" ByProduct and the ByProducts from the following Assemblies.

1 – "4#2 &1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assembly

Modify the Feeder Job Assembly "FLOOR 1 WEST FEEDER" at Line 100203 using the "FLOOR 1 WEST FEEDER" ByProduct and the ByProducts from the following Assemblies.

1 – "4#2 &1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assembly

Modify the Feeder Job Assembly "FLOOR 2 EAST FEEDER" at Line 100204 using the "FLOOR 2 EAST FEEDER" ByProduct and the ByProducts from the following Assemblies.

1 – "4#2 &1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assembly

Modify the Feeder Job Assembly "FLOOR 2 WEST FEEDER" at Line 100205 using the "FLOOR 2 WEST FEEDER" ByProduct and the ByProducts from the following Assemblies.

1 – "4#2 &1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assembly

Modify the Feeder Job Assembly "FLOOR 3 EAST FEEDER" at Line 100206 using the "FLOOR 3 EAST FEEDER" ByProduct and the ByProducts from the following Assemblies.

1 – "4#2 &1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assembly

Modify the Feeder Job Assembly "FLOOR 3 WEST FEEDER" at Line 100207 using the "FLOOR 3 WEST FEEDER" ByProduct and the ByProducts from the following Assemblies.

1 – "4#2 &1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assembly



# Trade Commercial Offices - Building Transformer/Feeder Takeoffs:

| Use Labels: Base Bid | Bldg. Serv. Pnl. & Feed <none> <none></none></none> |
|----------------------|---|
| Takeoff              | 1 – "PANEL MDP" Panel Job Assembly                  |
| Takeoff              | 1 – "PANEL HVAC" Panel Job Assembly                 |
| Takeoff              | 1 – "PANEL BUILDING" Panel Job Assembly             |
| Takeoff              | 120 – "FEEDER MDP 2000A" Feeder Job Assembly        |
| Takeoff              | 20 – "FLOOR 1 EAST FEEDER" Feeder Job Assembly      |
| Takeoff              | 150 – "FLOOR 1 WEST FEEDER" Feeder Job Assembly     |
| Takeoff              | 35 – "FLOOR 2 EAST FEEDER" Feeder Job Assembly      |
| Takeoff              | 165 – "FLOOR 2 WEST FEEDER" Feeder Job Assembly     |
| Takeoff              | 45 – "FLOOR 3 EAST FEEDER" Feeder Job Assembly      |
| Takeoff              | 175 – "FLOOR 3 WEST FEEDER" Feeder Job Assembly     |

## **Building Lighting:**

Build a "BUILDING STAIRS" Job Assembly for the building stairwells using the following Items and Assemblies:

- **6** "FIXTURE A" Job Assemblies change the ByProducts to have 6 boxes, 6 covers, and 6 box hangers
- 3 "FIXTURE E" Job Assemblies
- 1 "FIXTURE X" Job Assemblies
- 2 "3W STD" Switch Assemblies
- 1 "4W STD" Switch Assembly
  3 "DUPLEX STD" Receptacle Assemblies
- 120 "3 #12 1/2" EMT D/S STRAP" Branch Assemblies
- 120 "5 #12 1/2" EMT D/S STRAP" Branch Assemblies

**Build an "EXTERIOR BUILDING LIGHTING"** Job Assembly for the Exterior Building Lighting using the following Assemblies:

- 14 "FIXTURE D" Job Assemblies
- 350 "3 #12 1/2" EMT D/S STRAP" Branch Assemblies

**Build an "EQUIPMENT ROOM"** Job Assembly for the Building Equipment Room using the following Assemblies:

- **6** "FIXTURE F" Job Assemblies
- 1 "SP SP STD" Switch Assemblies
- 2 "DUPLEX STD" Receptacle Assemblies
- 110 "3 #12 1/2" EMT D/S STRAP" Branch Assemblies

# **Standard Training Manual - Electrical**



Trade Commercial Offices - Building Lighting Takeoffs:

Use Labels: Base Bid Bldg, Ltg. Outlet & Ltg. <none> <none>

Takeoff 2 - "BUILDING STAIRS" Job Assemblies

Takeoff 1 - "EXTERIOR BUILDING LIGHTING" Job Assembly

Takeoff 1 - "EQUIPMENT ROOM" Job Assembly

**Trade Commercial Offices - Extension Data:** 

**Extensions:** 

Zero Price & Labor – Use Labels > Base Bid All All <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: Zero Price and Labor

Note: Use this report to look for zero prices and zero labor. Do not send to the Bid Summary.

<u>Quotes</u> – Use Labels > Base Bid All All <none> <none>

Extension Report: Item Material List Material Filter: Quote

Note: Use this report to create a quotes list. Do not send to the Bid Summary.

Material List – Use Labels > Base Bid All All <none> <none>

Extension Report: Item Pull Sheet Material Filter: <None>

Note: Use this report for a material list. Do not send to the Bid Summary.

Base Bid – Use Labels > Base Bid All All <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Floor 1 – Use Labels > Base Bid Floor 1 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Floor 2 – Use Labels > Base Bid Floor 2 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Floor 3 – Use Labels > Base Bid Floor 3 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

**Trade Commercial Offices - Extension Data (contd):** 

Bldg. Service – Use Labels > Base Bid Bldg. Serv. Pnl. & Feed <none> <none>

# **Standard Training Manual - Electrical**



Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Bldg. Lighting – Use Labels > Base Bid Bldg. Ltg. Outlet & Ltg. <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

## **Trade Commercial Offices - Bid Summary Data:**

#### **Distribute Labor Hours:**

Foreman **10%** J/Mn Wir **70%** Appr 5 **20%** 

#### Tax:

Material is taxed at **6.5%**Supplier Quotes are taxed at **6.5%**Labor is not taxed
Do not mark up tax

#### Mark-ups:

Overhead 15% Profit 25%

| Suppl | ier | Qι | 101 | tes: |
|-------|-----|----|-----|------|
|       |     |    | -   | _    |

| Base Bid Switchgear                | \$45,423.00        | Base Bid Fixtures        | \$42,411.00     |
|------------------------------------|--------------------|--------------------------|-----------------|
|                                    |                    | <b>Building</b> Fixtures | \$ 5,022.00<br> |
| <b>Building</b> Service Switchgear | \$23,480.82        |                          |                 |
| Floor 3 Switchgear                 | \$ 7,314.06        | Floor 3 Fixtures         | \$12,558.00     |
| Floor 2 Switchgear                 | <b>\$ 7,314.06</b> | Floor 2 Fixtures         | \$12,558.00     |
| Floor 1 Switchgear                 | \$ 7,314.06        | Floor 1 Fixtures         | \$12,273.00     |
| Supplier Quotes.                   |                    |                          |                 |

### **Bonding:**

**Tip:** The "FROM" column automatically calculates the "FROM" amount based on the preceding "TO" amount, therefore typing in the "FROM" column of the "Bond Table" is not needed

\$0.00 to \$100,000 @ \$15.00/\$1000.00 (1.5%) \$100,000.01 to \$2,000,000 @ \$10.00/\$1000.00 (1.0%)

Check the Bonding box on the top sheet.

**Trade Commercial Offices Alternates** 

# Diagram

### **Trade Commercial Offices**



Alternate 2

Alternate 3

Base Bid

Alternate 1

MCCOPMIC Systems Inc.

Alternates for Existing Job named "Trade Commercial Offices".

**Specifications:** 

**NOTE:** Use your labels and as many assemblies as possible.

Job Name: Use existing Job "Trade Commercial Offices"

**Elevations:** Ceilings 8' 0" Floor to bottom of joists 12' 0"

Add Labels:Bid PackageFloorsSystemsColumn 4Column 5(The Boldface Labels)Base BidFloor 1Outlet &Ltg.<none><none>Alt. 1- AddFloor 2Pnl. & Feed

**Alt. 2 - Add** Floor 3



```
Alt. 3 - Add
                Bldg. Serv.
                Bldg. Ltg.
                Alt. 1 Floor 1
                Alt. 1 Floor 2
                Alt. 1 Floor 3
                Alt. 1 Bldg. Serv.
                Alt. 1 Bldg. Ltg.
                Alt. 2 Floor 4
                Alt. 2 Floor 5
                Alt. 2 Bldg. Serv.
                Alt. 2 Bldg. Ltg.
                Alt. 3 Floor 4
                Alt. 3 Floor 5
                Alt. 3 Bldg. Serv.
                Alt. 3 Bldg. Ltg.
```

Use the Existing Assemblies whenever possible.

# Alt. 1 - ADD: Add a second building.

Alt. 1 is a second building that is an exact duplicate of the first building.

| Use Labels: | Bid Package  | <u>Floors</u>   | Systems      | Column 4      | Column 5      |
|-------------|--------------|-----------------|--------------|---------------|---------------|
|             | Alt. 1 - Add | Alt. 1 Floor 1  | Outlet &Ltg. | <none></none> | <none></none> |
|             |              | Alt. 1 Floor 2  | Pnl. & Feed  |               |               |
|             |              | Alt. 1 Floor 3  |              |               |               |
|             |              | Alt. 1 Bldg. Se | erv.         |               |               |
|             |              | Alt. 1 Bldg. L  | tg.          |               |               |

Use "Change Labelset" to copy from the Base Bid building to the Alt. 1 building.



Alternates for Existing Job named "Trade Commercial Offices" Continued.

#### Alt. 2- ADD - Add an additional two floors to the original building.

Use Labels: Alt. 2 - Add Alt. 2 Floor 4 Outlet &Ltg. <none> <none>

#### Floor #4 Includes:

Takeoff 10 - "TYPE A OFFICE" Job Assemblies

**Takeoff 4 – "TYPE B OFFICE"** Job Assemblies

Takeoff 2 - "CONFERENCE ROOM" Job Assemblies

**Takeoff 2 – "OPEN OFFICE AREA"** Job Assemblies

**Takeoff 4 – "REST ROOM"** Job Assemblies

Takeoff 2 - "HALLWAY" Job Assemblies

Use Labels: Alt. 2 - Add Alt. 2 Floor 5 Outlet &Ltg. <none> <none>

#### Floor #5 Includes:

Takeoff 10 - "TYPE A OFFICE" Job Assemblies

**Takeoff 4 – "TYPE B OFFICE"** Job Assemblies

Takeoff 2 – "CONFERENCE ROOM" Job Assemblies

Takeoff 2 – "OPEN OFFICE AREA" Job Assemblies

Takeoff 4 - "REST ROOM" Job Assemblies

**Takeoff 2 – "HALLWAY"** Job Assemblies

# **Transformers & Panels for floors:**

Use the "Control/Insert" feature to re-name the panels and their ByProducts as follows. (See the "Build Panels" **Workspace** button on page "Fix/Dev/House" or the "Equipment" page.)

Modify the 100110 "PANEL 10" Assembly and its ByProduct to "PANEL LP-4E".

Modify the 100111 "PANEL 11" Assembly and its ByProduct to "PANEL LP-4W".

Modify the 100112 "PANEL 12" Assembly and its ByProduct to "PANEL LP-5E".

Modify the 100113 "PANEL 13" Assembly and its ByProduct to "PANEL LP-5W".

Modify the 100114 "PANEL 14" Assembly and its ByProduct to "ALT 2 PANEL MDP ADD 4-100A BREAKERS".

Modify the 100115 "PANEL 15" Assembly and its ByProduct to "ALT 2 PANEL HVAC ADD 4-60A BREAKERS".

Modify the Job Assembly "PANEL LP-4E" at Line 100110 using the existing "PANEL LP-4E" ByProduct and the ByProducts from the Job Panel Assembly "PANEL LP-1E". Delete the ByProduct "PANEL LP-1E" from this Assembly.

Modify the Job Assembly "PANEL LP-4W" at Line 100111 using the existing "PANEL LP-4W" ByProduct and the ByProducts from the Job Panel Assembly "PANEL LP-1E". Delete the ByProduct "PANEL LP-1E" from this Assembly.

Modify the Job Assembly "PANEL LP-5E" at Line 100112 using the existing "PANEL LP-5E" ByProduct and the ByProducts from the Job Panel Assembly "PANEL LP-1E". Delete the ByProduct "PANEL LP-1E" from this Assembly.

Modify the Job Assembly "PANEL LP-5W" at Line 100113 using the existing "PANEL LP-5W" ByProduct and the ByProducts from the Job Panel Assembly "PANEL LP-1E". Delete the ByProduct "PANEL LP-1E" from this Assembly.



Trade Commercial Offices Alt. 2- ADD - Add an additional two floors to the original building: Transformers & Panels for floors – (contd.):

# **Transformer/Panel Takeoffs:**

Use Labels: Alt. 2 - Add Alt. 2 Floor 4 Pnl. & Feed <none> <none>

Takeoff 1 - "PANEL LP-4E" Job Assembly

Takeoff 1 - "PANEL LP-4W" Job Assembly

Use Labels: Alt. 2 - Add Alt 2 Floor 5 Pnl. & Feed <none> <none>

Takeoff 1 - "PANEL LP-5E" Job Assembly

Takeoff 1 - "PANEL LP-5W" Job Assembly

#### **Building Service:**

Modify the Job Assembly "ALT 2 PANEL MDP ADD 4-100A BREAKERS" at Line 100114 using the existing "ALT 2 PANEL MDP ADD 4-100A BREAKERS" ByProduct and with ByProducts added as follows:

4 – "100A 3 WIRE CIRCUIT TERM" Assemblies (3 phase, 3 wire)

Modify the Job Assembly "ALT 2 PANEL HVAC ADD 4-60A BREAKERS" at Line 100115 using the existing "ALT 2 PANEL HVA ADD 4-60A BREAKERS" ByProduct and with ByProducts added as follows:

4 – "60A 3 WIRE TERMINATION" Assemblies (3 phase, 3 wire)

#### TRANSFORMER FEEDERS:

Use the "Control/Insert" feature to re-name the feeders and their ByProducts as follows. (See the "Build Feeders" **Workspace** button on page "Fix/Dev/House" or any of the "Feeder" pages.)

Modify the 100208 "FEEDER 8" Assembly and its ByProduct to "FLOOR 4 EAST FEEDER".

Modify the 100209 "FEEDER 9" Assembly and its ByProduct to "FLOOR 4 WEST FEEDER".

Modify the 100210 "FEEDER 10" Assembly and its ByProduct to "FLOOR 5 EAST FEEDER".

Modify the 100211 "FEEDER 11" Assembly and its ByProduct to "FLOOR 5 WEST FEEDER".

Modify the Feeder Job Assembly "FEEDER FLOOR 4 EAST" at Line 100208 using the "FEEDER FLOOR 4 EAST" ByProduct and the ByProducts from the following Assemblies.

1 – "4#2 & 1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assemblies

Modify the Feeder Job Assembly "FEEDER FLOOR 4 WEST" at Line 100209 using the "FEEDER FLOOR 4 WEST" ByProduct and the ByProducts from the following Assemblies.

1 - "4#2 &1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assemblies

Trade Commercial Offices Alt. 2- ADD - Add an additional two floors to the original building:

Modify the Feeder Job Assembly "FEEDER FLOOR 5 EAST" at Line 100210 using the "FEEDER FLOOR 5 EAST" ByProduct and the ByProducts from the following Assemblies.



# 1 - "4#2 &1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assemblies

Modify the Feeder Job Assembly "FEEDER FLOOR 5 WEST" at Line 100211 using the "FEEDER FLOOR 5 WEST" ByProduct and the ByProducts from the following Assemblies.

1 – "4#2 &1#6 1 1/4" EMT S/S BC/MIN CONST" Feeder with Constants Assemblies

#### **Building Service - Takeoff:**

Use Labels: Alt. 2 - Add Alt. 2 Bldg. Serv. Pnl. & Feed <none> <none>

**Takeoff** 1 – "MDP ALT.2 ADD BREAKERS" Job Assembly

**Takeoff** 1 – "HVAC ALT.2 ADD BREAKERS" Job Assembly

Takeoff 55 – "FLOOR 4 EAST FEEDER" Job Assembly

Takeoff 185 – "FLOOR 4 WEST FEEDER" Job Assembly

**Takeoff** 70 – "FLOOR 5 EAST FEEDER" Job Assembly **Takeoff 200** – "FLOOR 5 WEST FEEDER" Job Assembly

**Building Lighting –** 

**Build a "BLDG. LTG. FLOOR 4 & 5"** Job Assemblies for the 4<sup>th</sup> and 5<sup>th</sup> floor stairwells:

- **4** "FIXTURE A" Job Assemblies change the ByProducts to have 4 boxes, 4 covers, and 4 box hangers
- 2 "FIXTURE E" Job Assemblies
- 1 "FIXTURE X" Job Assemblies
- 2 "4W STD" Switch Assemblies
- 2 "DUPLEX STD" Receptacle Assemblies
- 60 "3 #12 1/2" EMT D/S STRAP" Branch Assemblies
- 80 "5 #12 1/2" EMT D/S STRAP" Branch Assemblies

#### **Building Lighting - Takeoff:**

Use Labels: Alt. 2 - Add Alt. 2 Bldg. Ltg. Outlet &Ltg. <none> <none>

Takeoff 2 - "BLDG, LTG, FLOOR 4 & 5" Job Assemblies

#### Alt. 3 - Add: Add an additional two floors to Alt. 1 building.

| Use Labels: | Column 1     | Column 2        | Column 3     | Column 4      | Column 5      |
|-------------|--------------|-----------------|--------------|---------------|---------------|
|             | Alt. 3 - Add | Alt. 3 Floor 4  | Outlet &Ltg. | <none></none> | <none></none> |
|             |              | Alt. 3 Floor 5  | Outlet &Ltg. |               |               |
|             |              | Alt. 3 Floor 4  | Pnl. & Feed  |               |               |
|             |              | Alt. 3 Floor 5  | Pnl. & Feed  |               |               |
|             |              | Alt. 3 Bldg. Se | erv.         |               |               |
|             |              | Alt. 3 Bldg. Lt | g.           |               |               |



Alt. 3 is adding an additional two floors to the Alt. 1 building. Use the same specifications as in Alt. 2.

Use "Change Labelset" to Copy from the Alt. 2 to Alt. 3.



# Alternates for Existing Job named "Trade Commercial Offices" - Extension Data:

Alt. 1 Extensions:

Alt. 1 – Add

Use Labels > Alt. 1 - Add Alt. 1 All Alt. 1 All <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

<u>Alt. 1 – Add - Floor 1:</u>

Use Labels > Alt. 1- Add Alt. 1 Floor 1 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

<u>Alt. 1 – Add - Floor 2:</u>

Use Labels > Alt. 1– Add Alt. 1 Floor 2 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

<u>Alt. 1 – Add - Floor 3:</u>

Use Labels > Alt. 1- Add Alt. 1 Floor 3 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Alt. 1 – Add - Bldg. Service:

Use Labels > Alt. 1– Add Alt. 1 Bldg. Serv. Pnl. & Feed <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

 $\overline{\text{Alt. } 1 - \text{Add}}$  - Bldg. Lighting:

Use Labels > Alt. 1– Add Alt. 1 Bldg. Ltg. Outlet & Ltg. <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Alternates for Existing Job named "Trade Commercial Offices" - Extension Data:

**Alt. 2 Extensions** 

# **Standard Training Manual - Electrical**



Alt. 2 – Add – Total:

Use Labels > Alt. 2 - Add Alt. 2 All Alt. 2 All <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

<u>Alt. 2 – Add - Floor 4:</u>

Use Labels > Alt. 2 - Add Alt. 2 Floor 4 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

<u>Alt. 2 – Add - Floor 5:</u>

Use Labels > Alt. 2 - Add Alt. 2 Floor 5 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Alt. 2 – Add - Bldg. Service:

Use Labels > Alt. 2 - Add Alt. 2 Bldg. Serv. Pnl. & Feed <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Alt. 2 – Add - Bldg. Lighting:

Use Labels > Alt. 2 - Add Alt. 2 Bldg. Ltg. Outlet & Ltg. <none > <none >

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Alternates for Existing Job named "Trade Commercial Offices" - Extension Data:

Alt. 3 – Add - Extensions:

Alt. 3 – Add – Total:

Use Labels > Alt. 3 - Add Alt. 3 All Alt. 3 All <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"



<u>Alt. 3 – Add - Floor 4:</u>

Use Labels > Alt. 3 – Add Alt. 3 Floor 4 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

<u>Alt. 3 – Add - Floor 5:</u>

Use Labels > Alt. 3 - Add Alt. 3 Floor 5 Outlet & Ltg. <none> <none>

Pnl. & Feed

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Alt. 3 – Add - Bldg. Service:

Use Labels > Alt. 3 – Add Alt. 3 Bldg. Serv. Pnl. & Feed <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Alt. 3 – Add - Bldg. Lighting:

Use Labels > Alt. 3 – Add Alt. 3 Bldg. Ltg. Outlet & Ltg. <none> <none>

Extension Report: Edit Price 1 and Bid Labor by Cost Code Material Filter: <None> Click "Send to Summary"

Alternates for Existing Job named "Trade Commercial Offices" - Bid Summary:

**Bid Summary Data:** 

# **Distribute Labor Hours:**

Foreman **10%**J/Mn Wir **70%**Appr 5 **20%** 

Tax:

Material is taxed at 6.5%



Supplier Quotes are taxed at **6.5%** Labor is not taxed Do NOT markup tax

# Mark-ups:

- **4.** Overhead 15%
- **5.** Profit 25%

# Alt. 1 – Add - Supplier Quotes:

| Floor 1<br>Floor 2     | Switchgear<br>Switchgear    | \$ 7,314.06<br>\$ 7,314.06 | Floor 1<br>Floor 2 | Fixtures<br>Fixtures | \$12,273.00<br>\$12,558.00                       |
|------------------------|-----------------------------|----------------------------|--------------------|----------------------|--|
| Floor 3 Building Servi | Switchgear<br>ce Switchgear | \$ 7,314.06<br>\$23,480.82 | Floor 3            | Fixtures             | \$12,558.00                                      |
| A14 A 11               | G '. 1                      | =======<br>#45_422_00      | Building           | Fixtures             | \$ 5,022.00<br>================================= |
| Alt 1 - Add            | Switchgear                  | \$45,423.00                | Alt. 1 - Ad        | d Fixtures           | \$42,411.00                                      |

# Alt. 2 – Add - Supplier Quotes:

| Floor 4<br>Floor 5 | Switchgear<br>Switchgear | \$ 7,314.06<br>\$ 7,314.06 | Floor 4<br>Floor 5 | Fixtures<br>Fixtures |            | 2,558.00<br>2,558.00 |
|--------------------|--------------------------|----------------------------|--------------------|----------------------|------------|----------------------|
| Building Serv      | ice Switchgear           | \$ 575.00                  | Building           | Fixtures             | \$         | 565.00               |
| Alt. 2 – Add       | Switchgear               | <b>\$15,203.12</b>         | Alt. 2 – Ad        | <b>d</b> Fixtures    | ==<br>\$2: | =======<br>5,681.00  |

# Alternates for Existing Job named "Trade Commercial Offices" - Bid Summary:

# Alt. 3 – Add - Supplier Quotes:

| Floor 4               | Switchgear    | <b>\$ 7,314.06</b> | Floor 4             | Fixtures   | <b>\$12</b> | 2,558.00 |
|-----------------------|---------------|--------------------|---------------------|------------|-------------|----------|
| Floor 5               | Switchgear    | <b>\$ 7,314.06</b> | Floor 5             | Fixtures   | <b>\$12</b> | 2,558.00 |
| <b>Building</b> Servi | ce Switchgear | \$ 575.00          |                     |            |             |          |
|                       |               |                    | Building            | Fixtures   | \$          | 565.00   |
|                       |               | =======            |                     |            | ===         | ======   |
| Alt. $2 - Add$        | Switchgear    | \$15,203.12        | <b>Alt. 2 – Add</b> | d Fixtures | \$25        | 5,681.00 |
|                       |               |                    |                     |            |             |          |

# **Bonding:**

**Tip:** The "FROM" column automatically calculates the "FROM" amount based on the preceding "TO" amount, therefore typing in the "FROM" column of the "Bond Table" is not needed



\$0.00 to \$100,000 @ \$15.00/\$1000.00 (1.5%) \$100,000.01 to \$2,000,000 @ \$10.00/\$1000.00 (1.0%)

Check the Bonding box on the top sheet for each Summary.

# Job 5

1. Start a New Job called Job 5

Paste the 3 Defaults + Bid Summary

**2.** Create Labels for Takeoff:

| Build Labels: | Bid Package | Column 2      | Column 3      | Column 4      | Column 5      |
|---------------|-------------|---------------|---------------|---------------|---------------|
|               | Base Bid    | <none></none> | <none></none> | <none></none> | <none></none> |

**3.** Takeoff the following Assemblies:

| 13 | SP     | STD |
|----|--------|-----|
| 42 | DUPLEX | STD |

950 3 #12 1/2" EMT D/S STRAP

**4.** Extend:

Change "Summary #1" to "Base Bid" if not already done. Change the Extension Report to "Edit Price 1 & Bid Labor by Cost Code"



Set the Material Filter to "<none>" Click the "Send to Summary" icon.

| <b>5.</b> Bid Summary: | Base Bid |
|------------------------|----------|
| Labor Hours            | 1000/    |
| Journeyman/Wireman     | 100%     |
| Taxes                  |          |
| Materials              | 6.5%     |
| Overhead – All         | 15%      |
| Overneau – An          | 1370     |
| Profit – All           | 10%      |
|                        |          |
| Mark-up Tax            | Yes      |

#### Job 6

1. Start a New Job called Job 6

Paste the 3 Defaults + Bid Summary

**2.** Create Labels for Takeoff:

| Build Labels: | Bid Package | Column 2      | Column 3      | Column 4      | Column 5      |
|---------------|-------------|---------------|---------------|---------------|---------------|
|               | Base Bid    | <none></none> | <none></none> | <none></none> | <none></none> |

**3.** Takeoff the following Assemblies:

| 95   | DUPLEX STD               |
|------|--------------------------|
| 46   | 3W STD                   |
| 12   | TEL, WALL 3/4" RISER     |
| 4000 | 3 #12 1/2" EMT D/S STRAP |

**4.** Extend:

Change "Summary #1" to "Base Bid" if not already done. Change the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" Set the Material Filter to "<none>" Click the "Send to Summary" icon.



5. Bid Summary:

Base Bid

Labor Hours
Journeyman/Wireman

100%

Taxes
Materials

6.5%

Overhead – All

15%

Profit – All

10%

Mark-up Tax

Yes

#### Job 7

1. Start a New Job called Job 7

Paste the 3 Defaults + Bid Summary

**2.** Create Labels for Takeoff:

| Build Labels: | Bid Package | Column 2      | Column 3      | Column 4      | Column 5      |
|---------------|-------------|---------------|---------------|---------------|---------------|
|               | Base Bid    | <none></none> | <none></none> | <none></none> | <none></none> |
|               | Alt 1 – Add |               |               |               |               |

**3.** Takeoff the following Assemblies:

**Base Bid** 

| _ ****      |                          |
|-------------|--------------------------|
| 220         | DUPLEX STD               |
| 145         | SP STD                   |
| 15          | TEL, WALL 3/4" RISER     |
| 5000        | 3 #12 1/2" EMT D/S STRAP |
|             |                          |
| Alt 1 - Add |                          |
| 15          | GFI STD                  |
| 18          | 3W STD                   |
| 12          | TELE-POWER POLE          |
| 4500        | 3 #12 1/2" EMT D/S STRAP |

#### **4.** Extend:

Change "Summary #1" to Base Bid, the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.

Change "Summary #2" to Alt 1 – Add, the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.



#### **5.** Bid Summary:

|                    | Base Bid    | Alt 1 - Add |   |
|--------------------|-------------|-------------|---|
| <b>Labor Hours</b> |             |             |   |
| Journeyman/Wireman | 100%        | 100%        |   |
| Taxes              | <del></del> |             | • |
| Materials          | 6.5%        | 6.5%        |   |
|                    | _           |             |   |
| Overhead – All     | 15%         | 15%         |   |
|                    |             |             |   |
| Profit – All       | 25%         | 25%         |   |
|                    | <del></del> |             | • |
| Mark-up Tax        | Yes         | Yes         |   |
| Job 8              |             | ·           |   |

1. Start a New Job called Job 8

Paste the 3 Defaults + Bid Summary

**2.** Create Labels for Takeoff:

| Build Labels: | Bid Package | Column 2      | Column 3      | Column 4      | Column 5      |
|---------------|-------------|---------------|---------------|---------------|---------------|
|               | Base Bid    | <none></none> | <none></none> | <none></none> | <none></none> |
|               | CO 1 - Add  |               |               |               |               |

**3.** Takeoff the following Assemblies:

Base Bid

| 45                | DUPLEX STD               |
|-------------------|--------------------------|
| 15                | SP STD                   |
| 45                | TEL, WALL 3/4" RISER     |
| 7                 | TELE-POWER POLE          |
| 3500              | 3 #12 1/2" EMT D/S STRAP |
|                   |                          |
| <u>CO 1 - Add</u> |                          |
| 18                | DUPLEX STD               |
| 4                 | GFI STD                  |
| 5                 | SP STD                   |
| 4                 | 3W STD                   |
| 950               | 3 #12 1/2" EMT D/S STRAP |
|                   |                          |

#### **4.** Extend:

Change "Summary #1" to Base Bid, the Extension Report to "Edit Price 1 & Bid Labor by Cost Code" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.

Change "Summary #2" to CO 1 – Add – Change the Extension Report to "Price 3 and NECA 3" and the Material Filter to "<none>", if not already done, then click the "Send to "Summary" icon.

**5.** Bid Summary:

| Base Bid | CO 1 - Add |
|----------|------------|
|          |            |

#### **Labor Hours**





| Journeyman/Wireman<br>Foreman | 100% | 100%  |  |
|-------------------------------|------|-------|--|
| Taxes                         |      | 10070 |  |
| Materials                     | 6.5% | 6.5%  |  |
| 0 1 1 1                       | 150/ | 150/  |  |
| Overhead – All                | 15%  | 15%   |  |
| Profit – All                  | 25%  | 25%   |  |
|                               |      |       |  |
| Mark-up Tax                   | Yes  | Yes   |  |



# **Technical Support**

If you have any questions or you would like more information please contact us at:



Our Website: <a href="www.mccormicksys.com">www.mccormicksys.com</a>
Email: <a href="mailto:msi@McCormickSys.com">msi@McCormickSys.com</a>

**Telephone: Toll Free:** 1-800-444-4890

**Voice:** 1-480-831-8914

**FAX:** 1-480-820-2422 Sales/R&D 1-480-820-5243 Support

Postal Mail: McCormick Systems Inc.

149 W. Boston St.

Chandler, Arizona 85225

**Our Business Hours:** Monday through Friday 6:00am to 4:00pm Arizona Time – MST (Winter), PST (Summer) Please note: *Arizona does NOT observe Daylight Savings Time*.

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Firefox home page: <a href="www.getfirefox.com">www.getfirefox.com</a>

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