



# **Guidelines for Completing the VDOT Form C-13CPM**

**CONSTRUCTION DIVISION**

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## 1. OVERVIEW

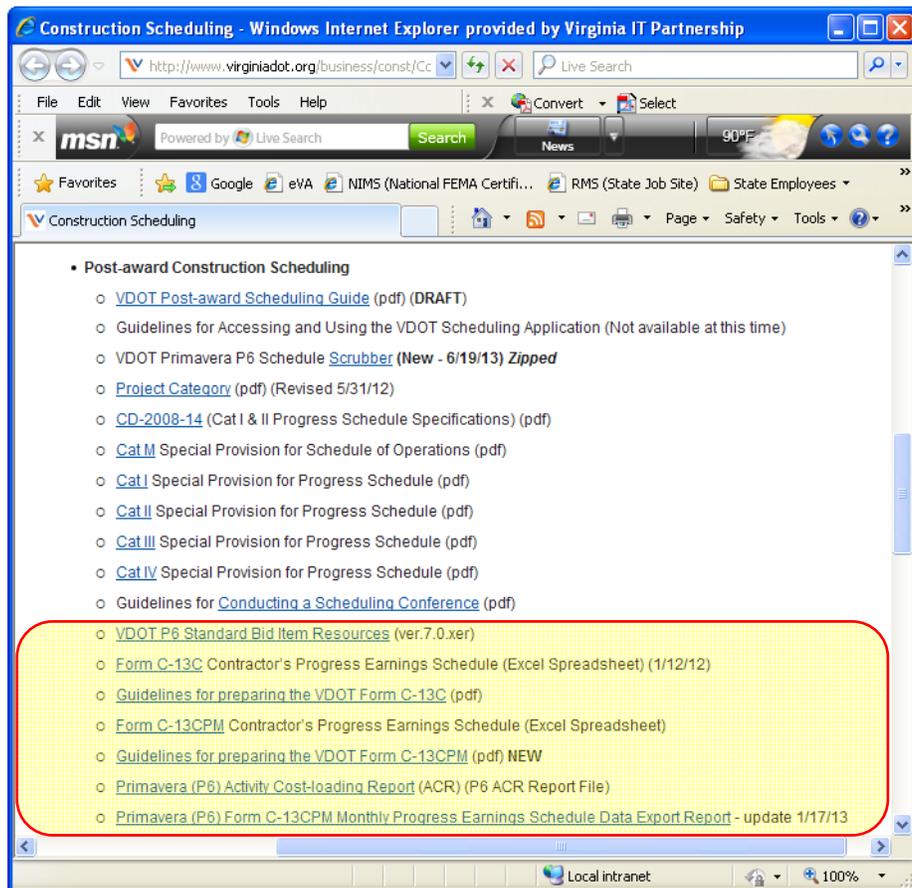
The VDOT Form C-13CPM is required to prepare and submit the Contractor's Progress Earnings Schedule as specified in the Category IV and V and Design-Build specifications. At the Contractor's discretion, Form C-13CPM may also be used to prepare the Progress Earnings Schedule for other projects, provided the Progress Schedule was cost-loaded in accordance with the Category IV Progress Schedule specifications. This guide provides guidelines for preparing the Form C-13CPM.

## 2. DOWNLOADING THE VDOT FORM C-13CPM FILES

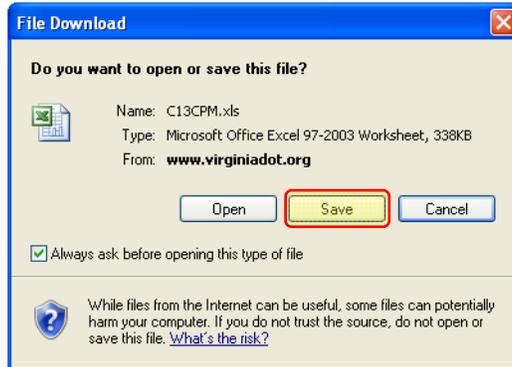
The VDOT Form C-13CPM (MS Excel spreadsheet) and related Primavera P6 ".erp" report files needed for preparing the Activity Cost-loading Report (ACR) and Contractor's Progress Earnings Schedule (Form C-13CPM) are available on the VDOT website and can be downloaded as follows:

1. Click on the following link to access the VDOT Construction Scheduling Webpage.

<http://www.virginiadot.org/business/const/ConstrSchResSpecs.asp>



2. Click on the Form C-13CPM link and then click on the Save button to download and save a copy of the Form C-13CPM to your computer.



3. Click on the Primavera P6 Activity Cost-loading Report (ACR) link and then click on the Save button to download and save a copy of the ACR "erp" report file to your computer.



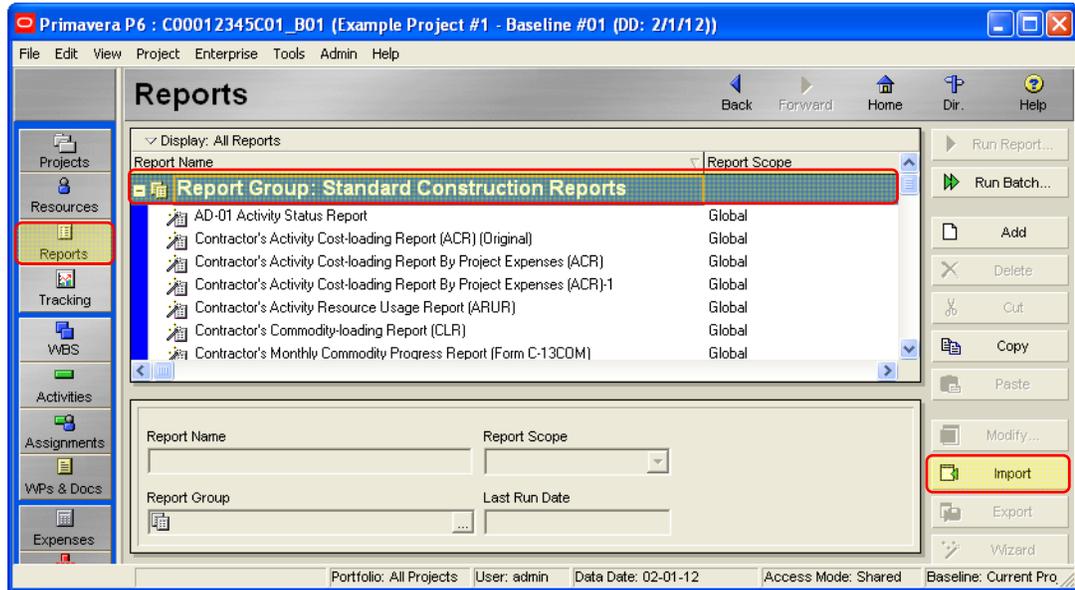
4. Click on the Primavera P6 Form C-13CPM Monthly Progress Earnings Schedule Data Export Report link and then click on the Save button to download and save a copy of the Form C-13CPM "erp" report file to your computer. The Primavera P6 Form C-13CPM report will be used to generate/export the monthly cost data needed to complete the Form C-13CPM.



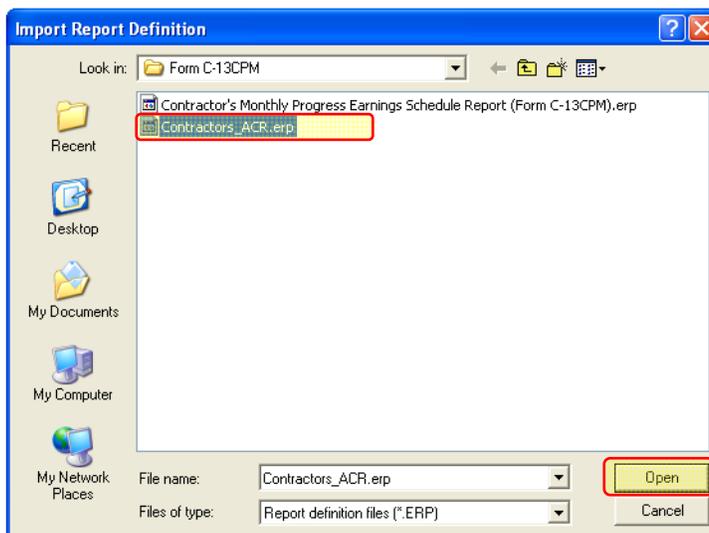
### 3. IMPORTING THE PRIMAVERA P6 “ERP” REPORTS

The Primavera P6 ACR and Form C-13CPM monthly cost data “erp” reports downloaded from the VDOT website can be imported to your Primavera P6 database for use in preparing the ACR and for generating/exporting the time-distributed (monthly) cost data needed to complete the Form C-13CPM. The following are guidelines for importing the Primavera P6 “erp” reports:

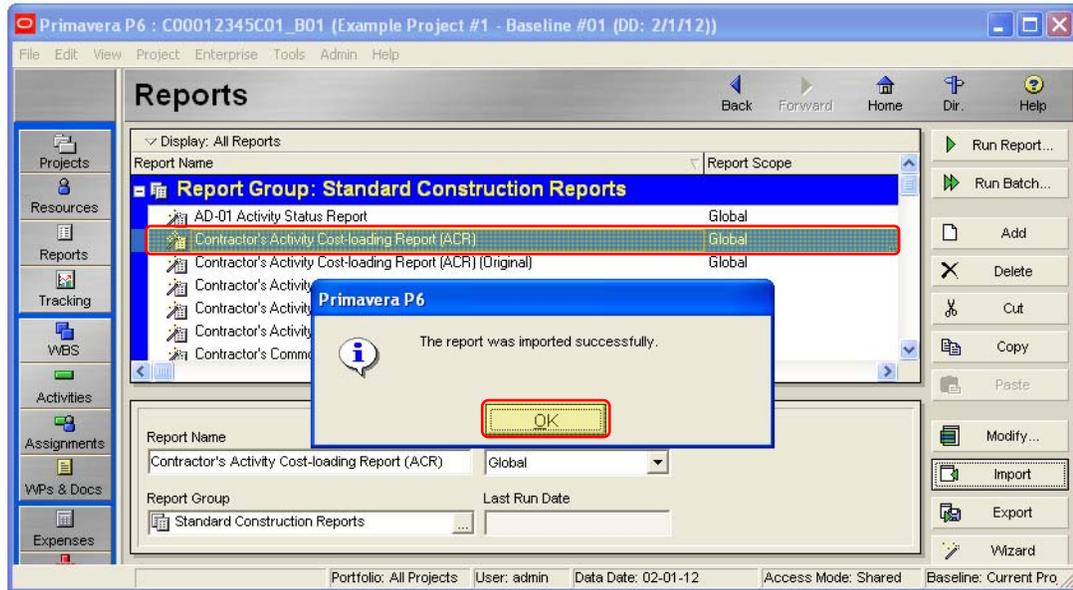
1. In the Reports window in Primavera P6, select a Report Group under which the new report will be created, then click on the Imports button in the Command bar.



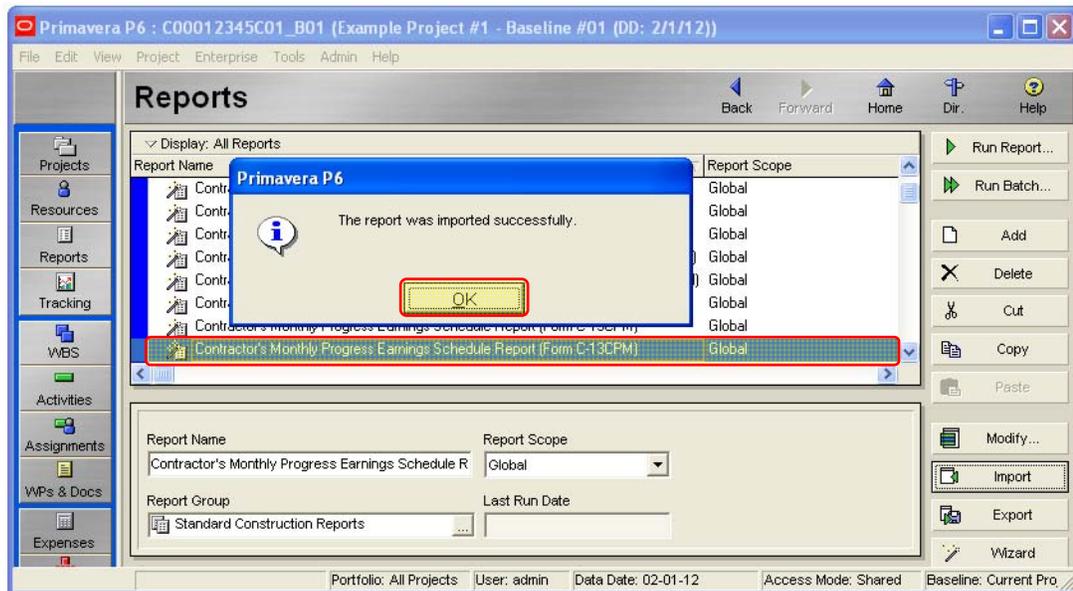
2. Locate the Contractor's\_ACR.erp file, select, and then click on Open.



3. Click on the OK button after the report has been imported successfully.



4. Repeat Steps 1 through 3 to import the Contractor's Monthly Progress Earnings Report (Form C-13CPM). The Primavera P6 Form C-13CPM report will be used to generate/export the monthly cost data needed to complete the Form C-13CPM.

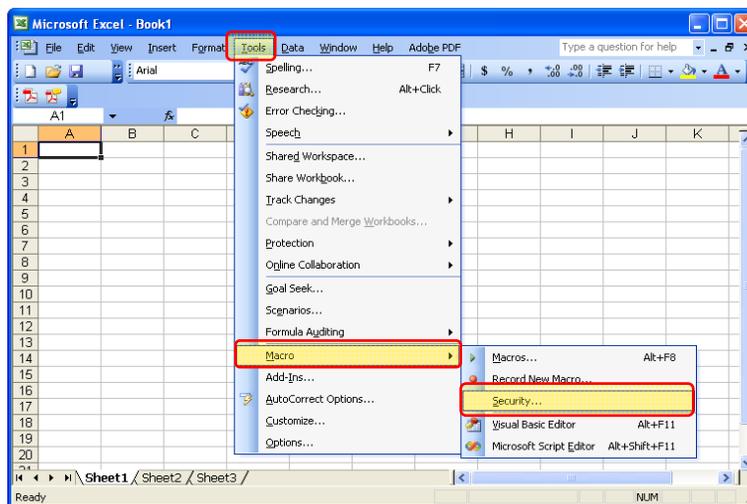


## 4. MODIFYING MICROSOFT EXCEL SOFTWARE SECURITY SETTING

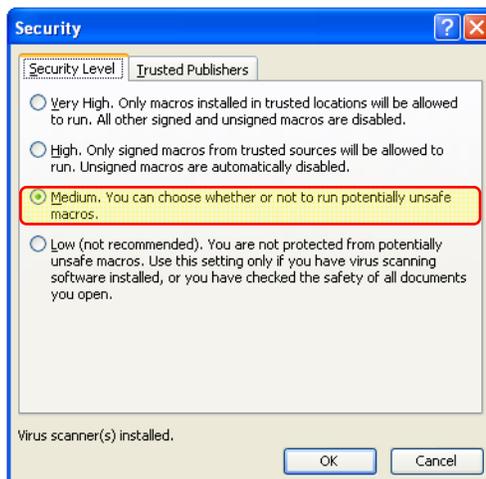
The VDOT Form C-13CPM uses MS Excel Add-ins formulas and built-in macros. Your software security software setting must be modified to enable macros when using the VDOT Form C-13CPM. The following are guidelines for modifying the MS Excel software security settings:

**A. For Microsoft Excel 2003 (or earlier):** Please note that the following user settings are required prior to using the Form C-13CPM. These are onetime (unless changed by the user) user settings necessary to ensure that the form functions properly. Prior to completing the form *for the first time*, users must first:

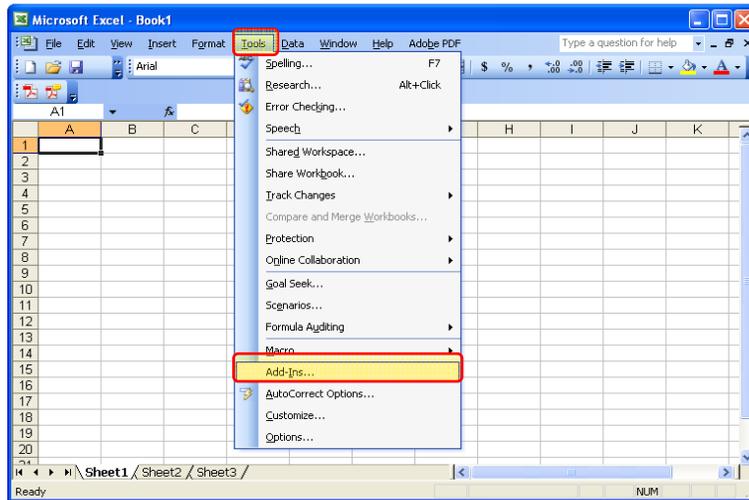
1. Click on Tools from the main menu, then Macro, and then Security.



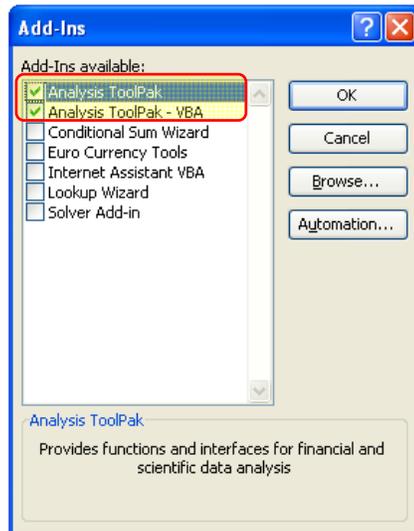
2. Then select the Medium security level, and then click OK. (*Note: Medium macro security setting is the maximum level macro security setting required to allow the built-in macros to function properly. Users may elect to change the setting as desired when not using the VDOT Form C-13CPM*).



3. Click on Tools from the main menu, and then click on Add-Ins.



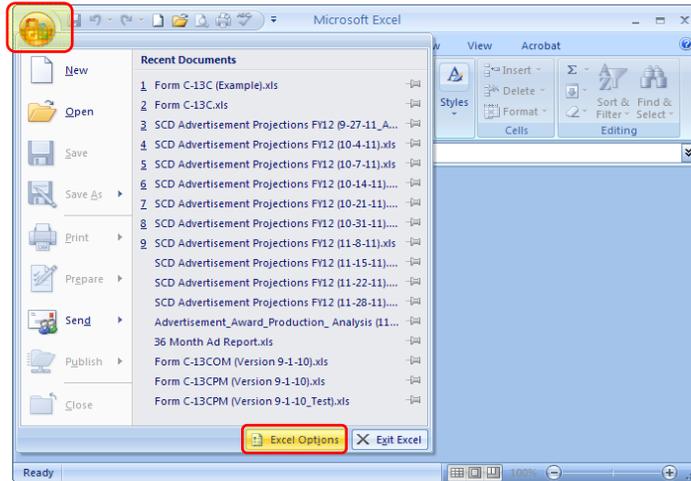
4. Click on the Analysis ToolPak and Analysis ToolPak – VBA checkboxes, and then click OK to activate additional functions needed for the form to function properly.



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**B. For Microsoft Excel 2007 or 2010:** Please note that the following user settings are required prior to using the Form C-13CPM to ensure that the form functions properly (these are onetime user settings unless changed by the user). Prior to completing the form *for the first time*, users must first:

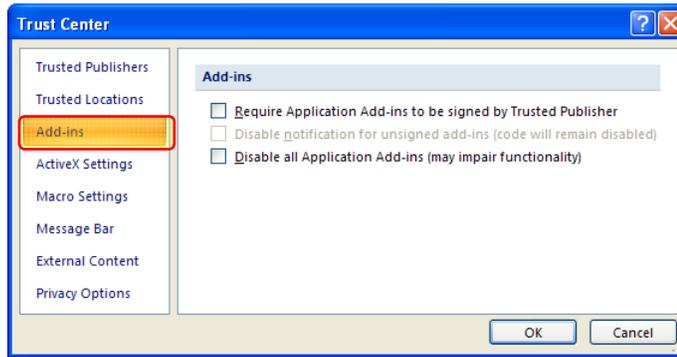
1. Click on the Windows Office Button, and then click on the Excel Options button.



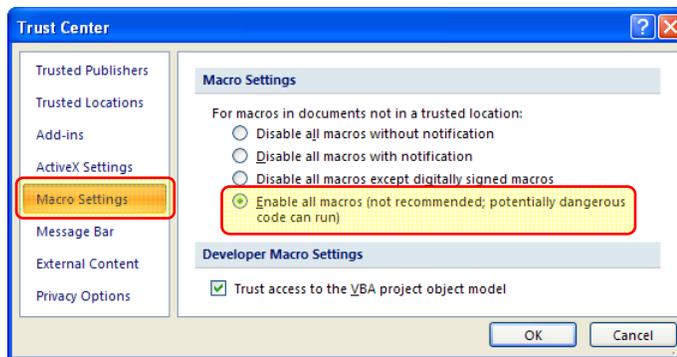
2. Click on the Trust Center link, and then click on the Trust Center Settings button.



3. Click on the Add-Ins link and ensure that the Add-ins boxes are unchecked.



4. Click on the Macro Settings link, then specify Enable all macros, and then click OK and OK again. (*Note: The enable all macro setting is a one-time setting that allows the built-in macros to function properly. However, users may elect to change the setting as desired when not using the VDOT Form C-13CPM*).



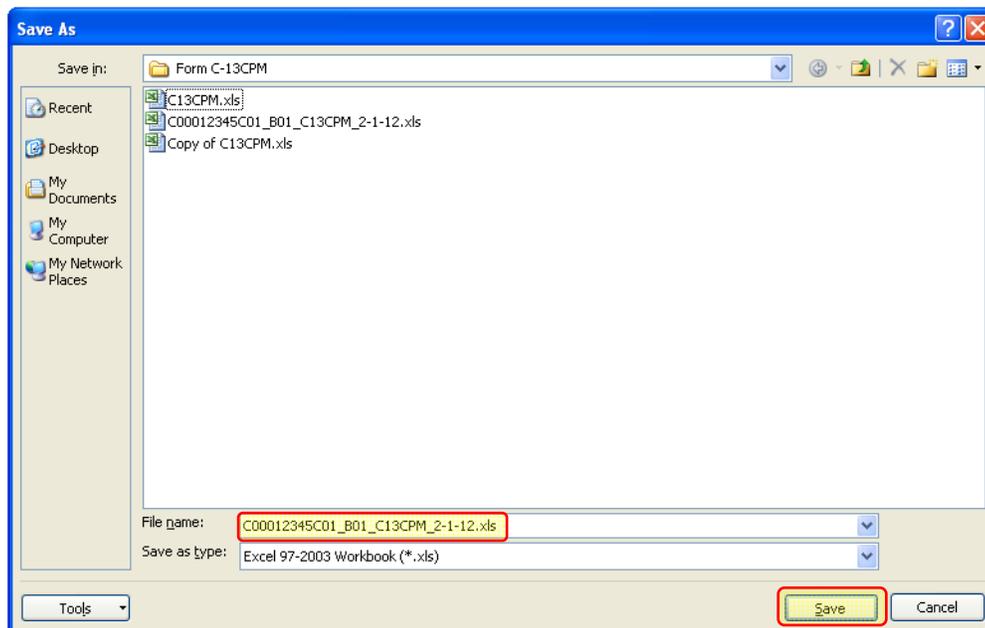
## 5. PREPARING A BASELINE PROGRESS EARNINGS SCHEDULE (FORM C-13CPM)

The VDOT Form C-13CPM is required by specifications to prepare the Baseline Progress Earnings Schedule for Category IV and V and Design-Build projects to show the Contractor's anticipated progress each month, as of the Contractor's progress estimate date. The Baseline Progress Earnings Schedule will be based on time-distributed monthly cost data generated from the cost-loaded Baseline Progress Schedule. The following are guidelines for preparing a Baseline Progress Earnings Schedule using Form C-13CPM:

1. Open a copy of the VDOT Form C-13CPM in MS Excel. (*Note: For Microsoft Excel 2003 (or earlier) users, a macro security warning will be displayed when opening the Form C-13CPM file. Click on the Enable Macros button to enable the built-in macros needed for the form to function properly.*)

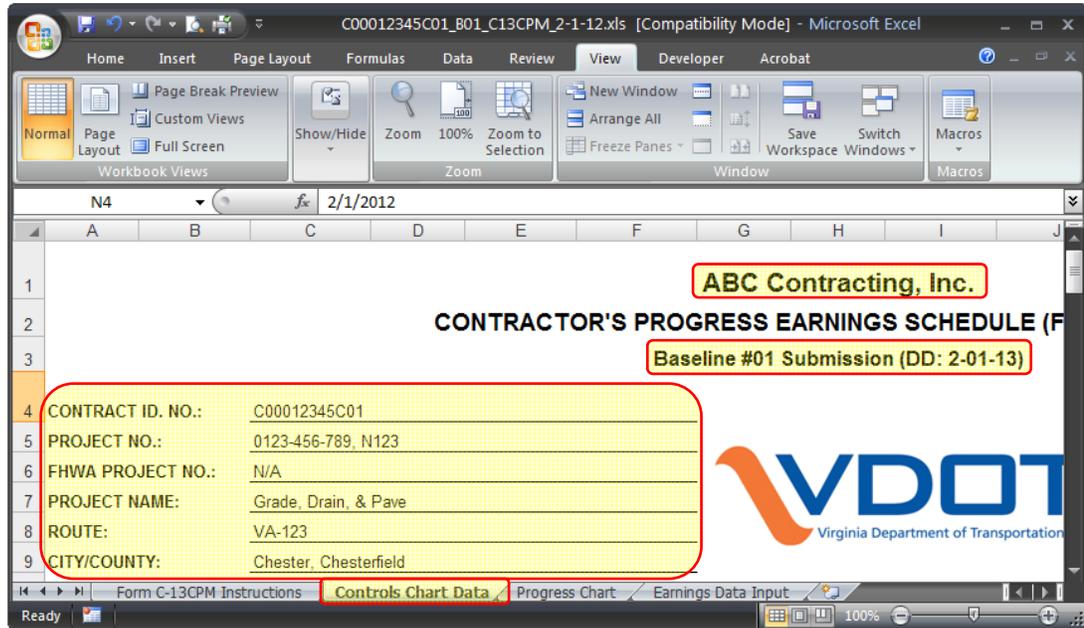


2. Save the file with a unique file name using the Contract ID as a prefix followed by the submission number, type of submission, and the current data date of the Progress Schedule on which the C-13CPM is based (i.e. C00012345C01\_B01\_C-13CPM\_2-01-12.xls).

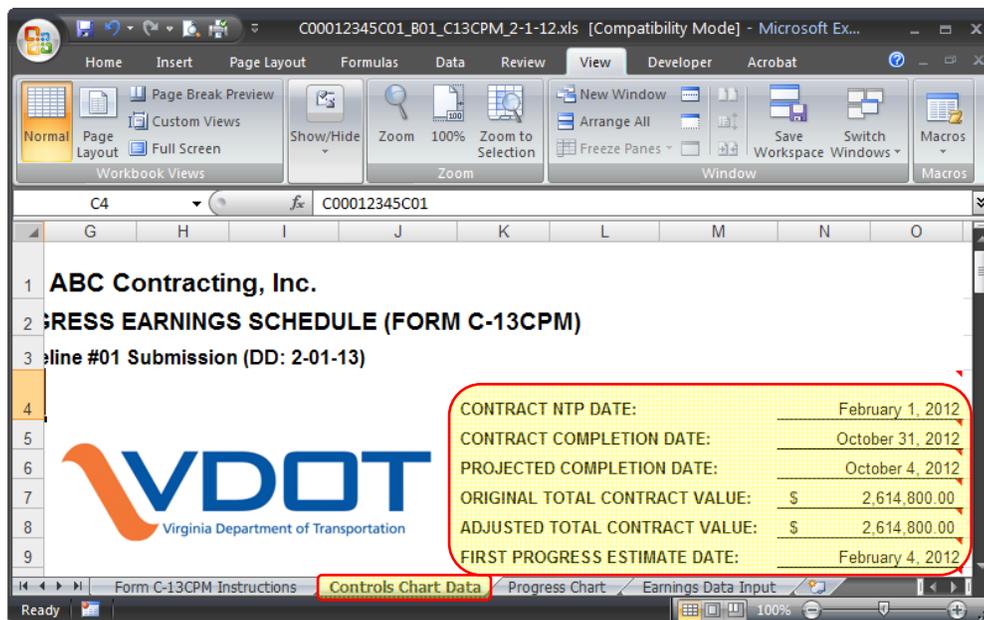


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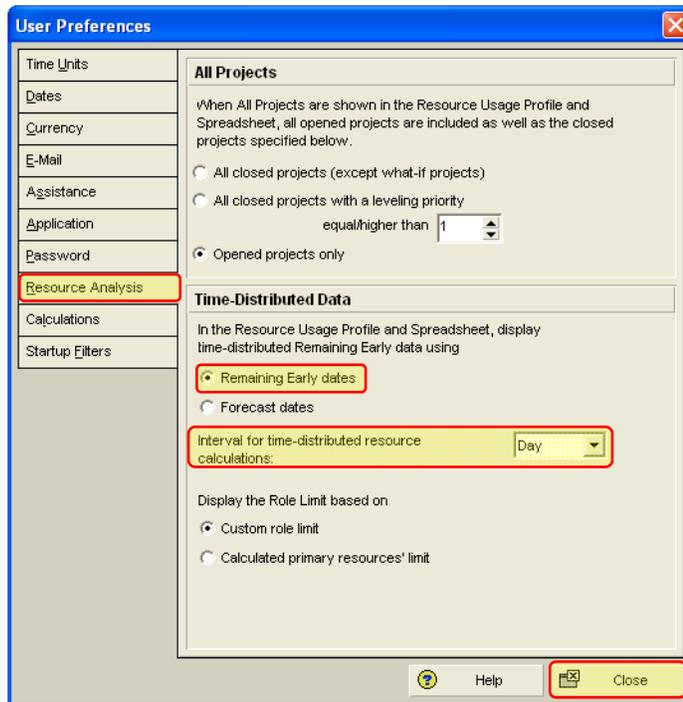
- Click on the Controls Chart Data tab to open the Controls Chart Data worksheet, and then enter the Contractor's name, submission number, and Progress Schedule data date. Then enter the required Contract ID and other required project information.



- Enter the required Contract time and financial data. (*Note: The Adjusted Total Contract Value is required and is the currently approved Contract amount at the time the C-13CPM is prepared, which must equal the Original Total Contract Value or as subsequently adjusted by an approved Work Order*).

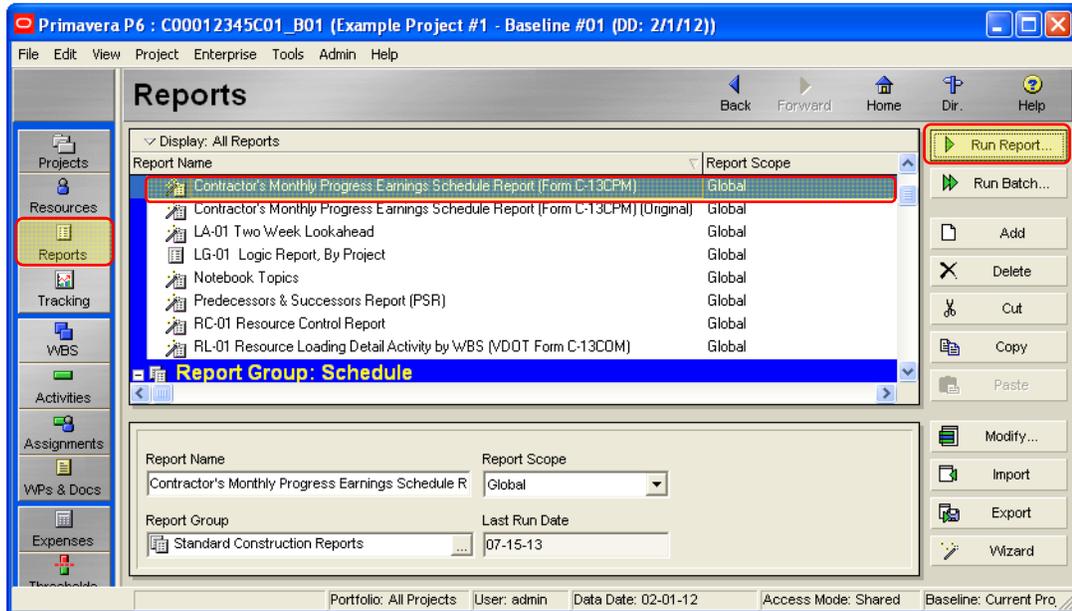


5. Prior to running the Primavera P6 Contractor's Monthly Progress Earnings Schedule Report (Form C-13CPM) to generate/export the monthly cost data, your User Preferences in Primavera P6 must be modified as follows:

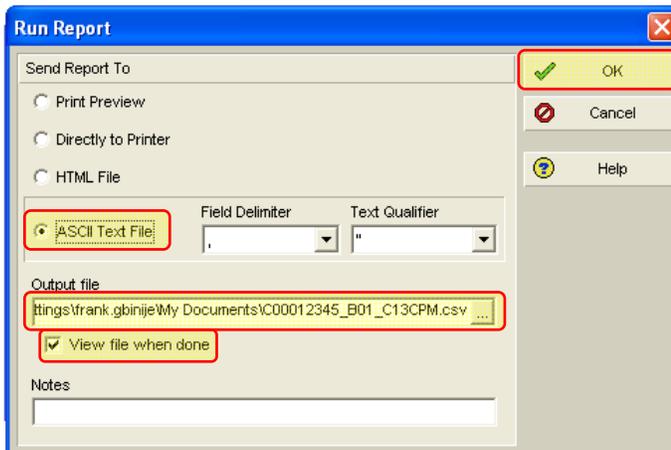


- i) In Primavera P6, click on Edit in menu bar, then User Preferences to open the User Preferences dialog box.
- ii) Then click on the Resource Analysis tab.
- iii) Then specify Remaining Early dates to display the time-distributed data based on remaining early dates.
- iv) Then select Day as the Interval for time-distributed resource calculations.
- v) And then click on Close.

6. In the Reports window in Primavera P6, select Contractor's Monthly Progress Earnings Schedule Report (Form C-13CPM), then click on the Run Report button in the Command bar.

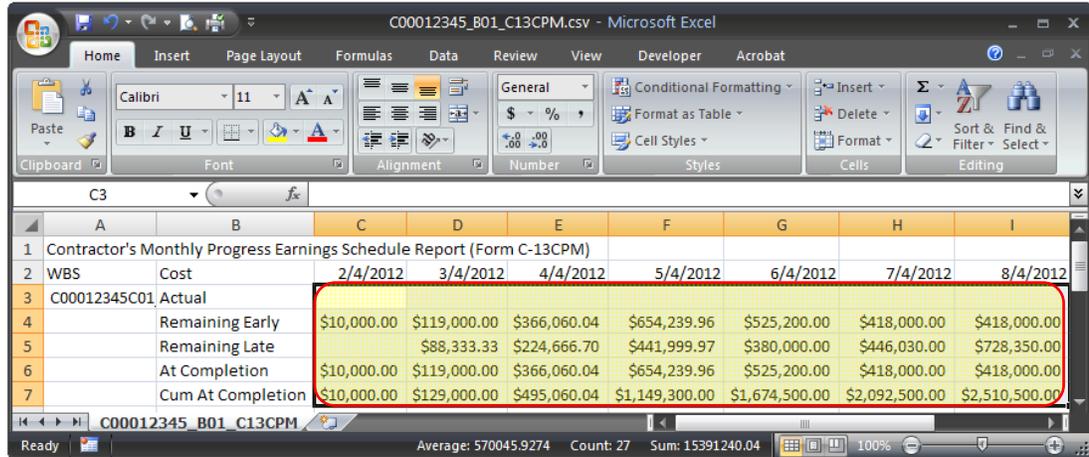


7. Specify ASCII Text File (with the Field Delimiter and Text Qualifier specified as shown), then provide a filename and location for the Output file. Then mark the View file when done checkbox, and then click OK to create and open the time-distributed monthly cost data "csv" spreadsheet file in MS Excel.

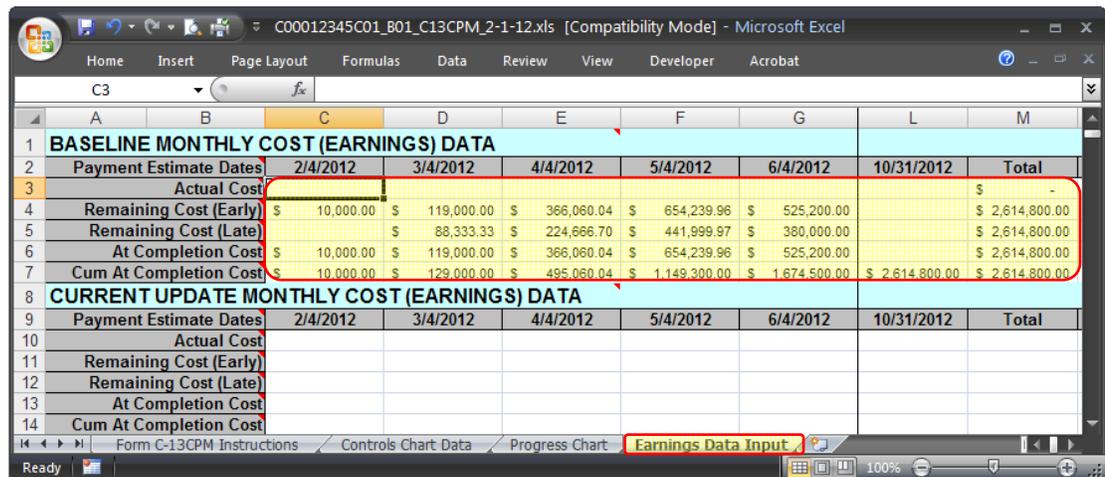


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8. In the C-13CPM “csv” worksheet generated from Primavera P6, click on Cell C3, then drag down to Cell C7 (Column C, Rows 3 thru 7), and then across to the Total column to select the values for each pay period and Total column. Then right-click and click on Copy to copy the selected cost data. *(Note: The Form C-13CPM may have more estimate periods than the monthly cost data “csv” worksheet generated from P6, if the calculated finish date of the project is earlier than the Contract completion date).*



9. In the Form C-13CPM Earnings Data Input worksheet, click on Cell C3 in the Baseline Monthly Cost (Earnings) Data section, then right-click and click on Paste to paste the monthly values copied from the C-13CPM “csv” worksheet. Review to make sure that the monthly values for each estimate period and Total column align with the “csv” worksheet, adjust as necessary. *(Note: If there are additional estimate periods in Earnings Data Input worksheet and the Total values are misplaced, cut/paste the Total values into the Total column, as necessary. And then copy the Cum At Completion Cost (CACC) value from the last estimate period with a CACC value and paste into each of the following blank estimate periods preceding the Total column).*



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10. In the Form C-13CPM Earnings Data Input worksheet, copy the values from the Baseline Monthly Cost (Earnings) Data section and paste into the Current Update Monthly Cost (Earnings) Data section to establish the Contractor's current projected monthly earnings. Review to make sure that the values for each estimate period and Total column for the baseline and current update sections are in alignment, adjust as necessary.

BASELINE MONTHLY COST (EARNINGS) DATA							
Payment Estimate Dates	2/4/2012	3/4/2012	4/4/2012	5/4/2012	6/4/2012	10/31/2012	Total
Actual Cost							\$ -
Remaining Cost (Early)	\$ 10,000.00	\$ 119,000.00	\$ 366,060.04	\$ 654,239.96	\$ 525,200.00		\$ 2,614,800.00
Remaining Cost (Late)	\$ 10,000.00	\$ 88,333.33	\$ 224,666.70	\$ 441,999.97	\$ 380,000.00		\$ 2,614,800.00
At Completion Cost	\$ 10,000.00	\$ 119,000.00	\$ 366,060.04	\$ 654,239.96	\$ 525,200.00		\$ 2,614,800.00
Cum At Completion Cost	\$ 10,000.00	\$ 129,000.00	\$ 495,060.04	\$ 1,149,300.00	\$ 1,674,500.00	\$ 2,614,800.00	\$ 2,614,800.00

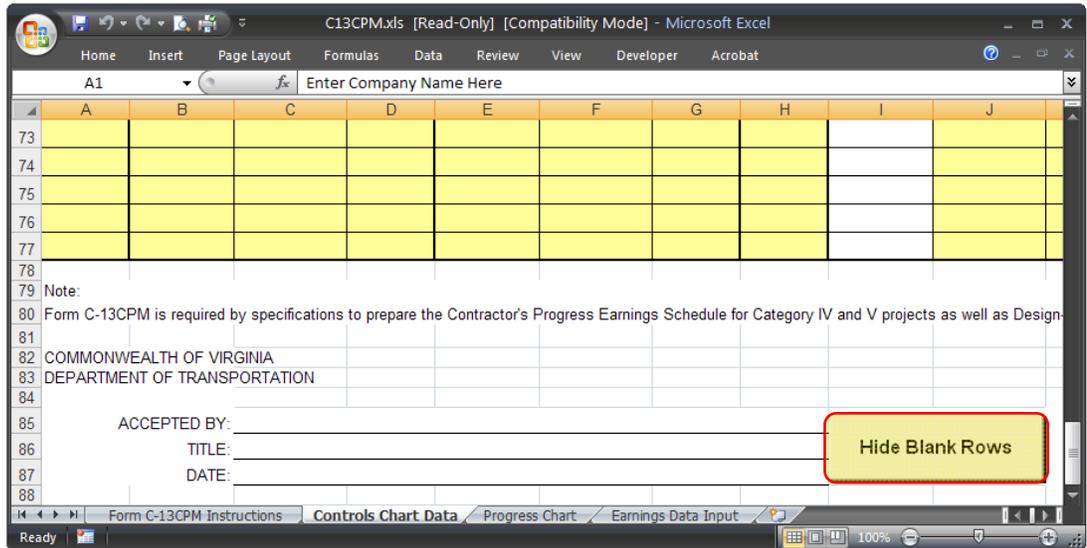
CURRENT UPDATE MONTHLY COST (EARNINGS) DATA							
Payment Estimate Dates	2/4/2012	3/4/2012	4/4/2012	5/4/2012	6/4/2012	10/31/2012	Total
Actual Cost							\$ -
Remaining Cost (Early)	\$ 10,000.00	\$ 119,000.00	\$ 366,060.04	\$ 654,239.96	\$ 525,200.00		\$ 2,614,800.00
Remaining Cost (Late)	\$ 10,000.00	\$ 88,333.33	\$ 224,666.70	\$ 441,999.97	\$ 380,000.00		\$ 2,614,800.00
At Completion Cost	\$ 10,000.00	\$ 119,000.00	\$ 366,060.04	\$ 654,239.96	\$ 525,200.00		\$ 2,614,800.00
Cum At Completion Cost	\$ 10,000.00	\$ 129,000.00	\$ 495,060.04	\$ 1,149,300.00	\$ 1,674,500.00	\$ 2,614,800.00	\$ 2,614,800.00

11. Click on the Controls Chart Data to review the monthly and cumulative values for accuracy. Compare against the "csv" cost worksheet.

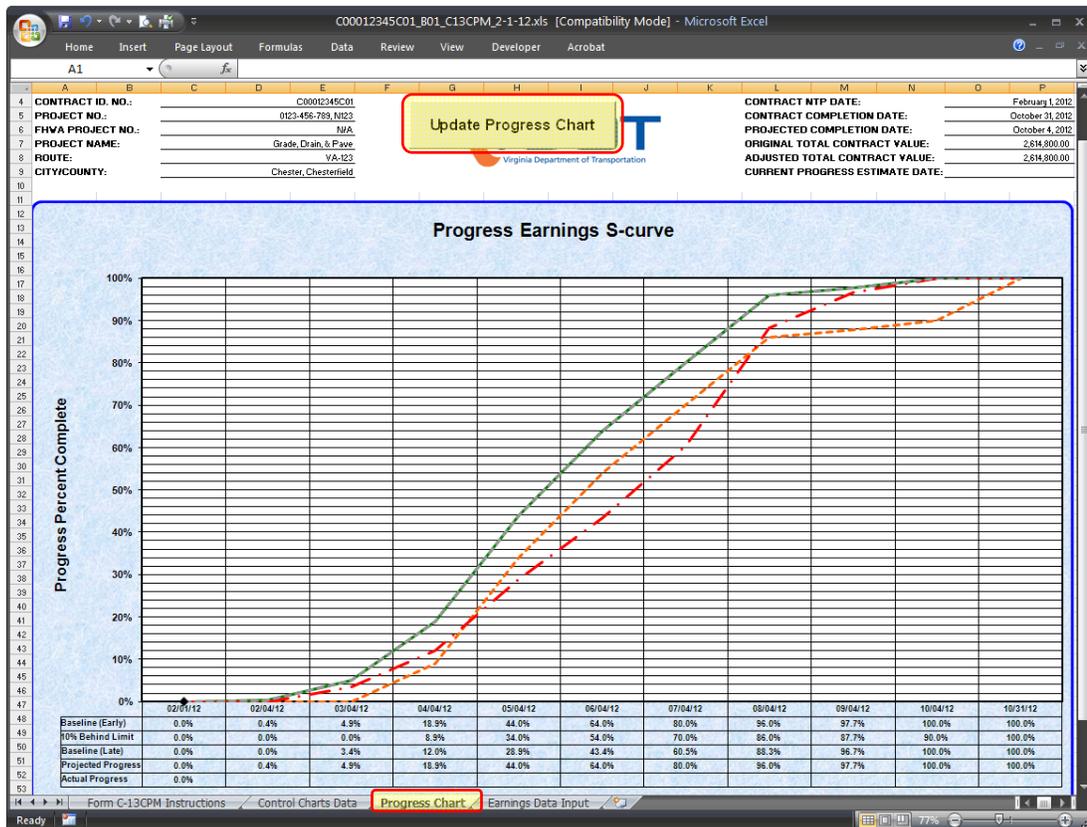
MONTHLY PROGRESS ESTIMATE DATE	BASELINE MONTHLY EARNINGS (EARLY)	BASELINE CUMULATIVE EARNINGS (EARLY)	BASELINE PROGRESS PERCENT COMPLETE (EARLY)	BASELINE MONTHLY EARNINGS (LATE)	BASELINE CUMULATIVE EARNINGS (LATE)	BASELINE PROGRESS PERCENT COMPLETE (LATE)	10% BEHIND BASELINE PROGRESS CONTROL LIMIT	ACTUAL MONTHLY EARNINGS	ACTUAL CUMULATIVE EARNINGS
02/01/12	Notice to Proceed Date		0.0%	\$ -	\$ -	0.0%	0.0%	\$ -	\$ -
02/04/12	\$ 10,000.00	\$ 10,000.00	0.4%	\$ -	\$ -	0.0%	0.0%		
03/04/12	\$ 119,000.00	\$ 129,000.00	4.9%	\$ 88,333.33	\$ 88,333.33	3.4%	0.0%		
04/04/12	\$ 366,060.04	\$ 495,060.04	18.9%	\$ 224,666.70	\$ 313,000.03	12.0%	8.9%		
05/04/12	\$ 654,239.96	\$ 1,149,300.00	44.0%	\$ 441,999.97	\$ 755,000.00	28.9%	34.0%		
06/04/12	\$ 525,200.00	\$ 1,674,500.00	64.0%	\$ 380,000.00	\$ 1,135,000.00	43.4%	54.0%		
07/04/12	\$ 418,000.00	\$ 2,092,500.00	80.0%	\$ 446,030.00	\$ 1,581,030.00	60.5%	70.0%		
08/04/12	\$ 418,000.00	\$ 2,510,500.00	96.0%	\$ 728,350.00	\$ 2,309,380.00	88.3%	86.0%		
09/04/12	\$ 45,257.14	\$ 2,555,757.14	97.7%	\$ 220,160.00	\$ 2,529,540.00	96.7%	87.7%		
10/04/12	\$ 59,042.86	\$ 2,614,800.00	100.0%	\$ 85,260.00	\$ 2,614,800.00	100.0%	90.0%		
10/31/12	\$ -	\$ 2,614,800.00	100.0%	\$ -	\$ 2,614,800.00	100.0%	100.0%		

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- Click on the Hide Blank Rows button at the bottom of the form to hide any unused rows after setting or resetting either the Contract Completion Date or Projected Completion Date.



- Click on the Progress Chart to view/print the Progress Earnings Schedule S-Curve. Click the Update Progress Chart button to plot/update the chart. Lastly, save the file.



## 6. PREPARING A PROGRESS EARNINGS SCHEDULE UPDATE (FORM C-13CPM)

The VDOT Form C-13CPM is required by specifications to prepare the Progress Earnings Schedule Update for Category IV and V and Design-Build projects to show the Contractor's current progress on the project based on the total earnings to date, as of the progress estimate date. The Progress Earnings Schedule Update must also show the current projected monthly earnings for the remaining periods based on monthly values generated from the current Progress Schedule Update. The following are guidelines for preparing a Progress Earnings Schedule Update using the VDOT Form C-13CPM:

1. Open a copy of the previously accepted Form C-13CPM, then save/rename the file using a unique filename to indicate the submission number, type, and current data date of the update (i.e. C00012345C01\_U01\_C-13CPM\_2-4-12.xls). Update the following information to reflect the current submission:

12	BASELINE CUMULATIVE EARNINGS (LATE)	BASELINE PROGRESS PERCENT COMPLETE (LATE)	10 % BEHIND BASELINE PROGRESS CONTROL LIMIT	ACTUAL MONTHLY EARNINGS	ACTUAL CUMULATIVE EARNINGS	ACTUAL PROGRESS PERCENT COMPLETE	CURRENT PROJECTED MONTHLY EARNINGS	CURRENT CUMULATIVE AT COMPLETION EARNINGS	CURRENT PROJECTED PROGRESS PERCENT COMPLETE	PROGRESS VARIANCE (CURRENT % BASELINE %)
15	\$ -	0.0%	0.0%	\$ -	\$ -	0.0%	\$ -	\$ -	0.0%	0.0%

- i) Update the submission title to indicate the current update submission (i.e. Monthly Update #01 (DD: 2-04-13).
- ii) Update the Projected Completion Date to reflect the scheduled project completion date in the current Progress Schedule Update.
- iii) Update the Adjusted Total Contract Value, if the Contract amount has been adjusted since the last update.
- iv) Update the Current Progress Estimate Date to indicate the current estimate.

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- Follow the steps described in subsections 5.6 and 5.7 above to generate the Form C-13CPM "csv" worksheet from the current Progress Schedule Update in Primavera P6. Then place your cursor on Cell C3, drag to Cell C7 and then across to the Total column to select the monthly and Total values, and then right-click and click on Copy to copy the selected values.

The screenshot shows a Microsoft Excel window titled "C00012345C01\_U01\_C13CPM.csv - Microsoft Excel". The active cell is C3, containing the value 50000. A red box highlights the range C3:J7. The data in this range is as follows:

	2/4/2012	3/4/2012	4/4/2012	5/4/2012	6/4/2012	7/4/2012	8/4/2012	9/4/2012
Actual	\$50,000.00							
Remaining Early		\$79,000.00	\$366,060.04	\$654,239.96	\$525,200.00	\$418,000.00	\$418,000.00	\$45,257.14
Remaining Late		\$47,222.22	\$215,777.81	\$441,999.97	\$380,000.00	\$446,030.00	\$728,350.00	\$220,160.00
At Completion	\$50,000.00	\$79,000.00	\$366,060.04	\$654,239.96	\$525,200.00	\$418,000.00	\$418,000.00	\$45,257.14
Cum At Completion	\$50,000.00	\$129,000.00	\$495,060.04	\$1,149,300.00	\$1,674,500.00	\$2,092,500.00	\$2,510,500.00	\$2,555,757.14

- In the Earnings Data Input worksheet, click on Cell C10 in the Current Update Monthly Cost (Earnings) Data section, then right-click and click on Paste to paste the values copied from the "csv" worksheet.

The screenshot shows a Microsoft Excel window titled "C00012345C01\_U01\_C13CPM\_2-4-12.xls [Compatibility Mode] - Microsoft Excel". The active cell is C10, containing the value 50000. A red box highlights the range C10:J14. The data in this range is as follows:

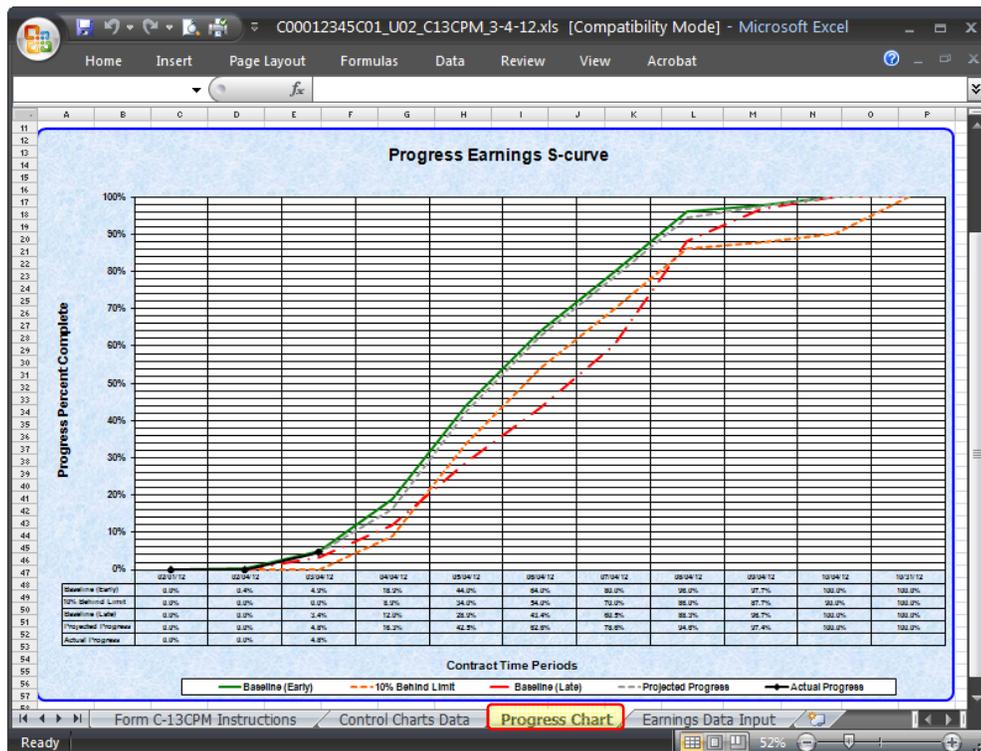
	2/4/2012	3/4/2012	4/4/2012	5/4/2012	6/4/2012	10/31/2012	Total
Actual Cost	\$ 50,000.00						\$ 50,000.00
Remaining Cost (Early)		\$ 79,000.00	\$ 366,060.04	\$ 654,239.96	\$ 525,200.00		\$ 2,564,800.00
Remaining Cost (Late)		\$ 47,222.22	\$ 215,777.81	\$ 441,999.97	\$ 380,000.00		\$ 2,564,800.00
At Completion Cost	\$ 50,000.00	\$ 79,000.00	\$ 366,060.04	\$ 654,239.96	\$ 525,200.00		\$ 2,614,800.00
Cum At Completion Cost	\$ 50,000.00	\$ 129,000.00	\$ 495,060.04	\$ 1,149,300.00	\$ 1,674,500.00	\$ 2,614,800.00	\$ 2,614,800.00

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- In the Actual Monthly Earnings column in the Controls Chart Data worksheet, type in the actual monthly earnings for the current estimate period, as reflected on the Contractor's current approved progress estimate, and then hit the Enter key on your keyboard. (*Note: if you copy/paste the current actual monthly earnings value into the form, you must click on the formula bar and then hit the Enter key on your keyboard to activate the built-in macros*).

MONTHLY PROGRESS ESTIMATE DATE	BASELINE MONTHLY EARNINGS (EARLY)	BASELINE CUMULATIVE EARNINGS (EARLY)	BASELINE PROGRESS PERCENT COMPLETE (EARLY)	BASELINE MONTHLY EARNINGS (LATE)	BASELINE CUMULATIVE EARNINGS (LATE)	BASELINE PROGRESS PERCENT COMPLETE (LATE)	10% BEHIND BASELINE PROGRESS CONTROL LIMIT	ACTUAL MONTHLY EARNINGS	ACTUAL CUMULATIVE EARNINGS
02/01/12	Notice to Proceed Date		0.0%	\$ -	\$ -	0.0%	0.0%	\$ -	\$ -
02/04/12	\$ 10,000.00	\$ 10,000.00	0.4%	\$ -	\$ -	0.0%	0.0%	\$ 50,000.00	\$ 50,000.00
03/04/12	\$ 119,000.00	\$ 129,000.00	4.9%	\$ 88,333.33	\$ 88,333.33	3.4%	0.0%		
04/04/12	\$ 366,060.04	\$ 495,060.04	18.9%	\$ 224,666.70	\$ 313,000.03	12.0%	8.9%		
05/04/12	\$ 654,239.96	\$ 1,149,300.00	44.0%	\$ 441,999.97	\$ 755,000.00	28.9%	34.0%		
06/04/12	\$ 525,200.00	\$ 1,674,500.00	64.0%	\$ 380,000.00	\$ 1,135,000.00	43.4%	54.0%		
07/04/12	\$ 418,000.00	\$ 2,092,500.00	80.0%	\$ 446,030.00	\$ 1,581,030.00	60.5%	70.0%		
08/04/12	\$ 418,000.00	\$ 2,510,500.00	96.0%	\$ 728,350.00	\$ 2,309,380.00	88.3%	86.0%		
09/04/12	\$ 45,257.14	\$ 2,555,757.14	97.7%	\$ 220,160.00	\$ 2,529,540.00	96.7%	87.7%		
10/04/12	\$ 59,042.86	\$ 2,614,800.00	100.0%	\$ 85,260.00	\$ 2,614,800.00	100.0%	90.0%		
10/31/12	\$ -	\$ 2,614,800.00	100.0%	\$ -	\$ 2,614,800.00	100.0%	100.0%		

- Click on the Progress Chart worksheet to view/print the Progress Earnings Schedule S-Curve. Click the Update Progress Chart button to plot/update the chart. Lastly, save the file.



For questions, issues, or assistance on using the VDOT Form C-13CPM, please contact:

Frank Gbinije

Email: [frank.gbinije@VDOT.Virginia.gov](mailto:frank.gbinije@VDOT.Virginia.gov)

Phone: (804) 786-2980