

Green Light – Go: Pennsylvania’s Municipal Signal Partnership Program Cost Estimating Guidance

The Pennsylvania Department of Transportation’s application process for the Green Light – Go program requires the development of a project cost estimate. In order to provide consistency in the cost estimating process, the following guidance is provided to assist municipalities in developing programmatic cost estimates for their projects.

The cost estimating process, and the development of project-specific unit costs, should be based on information contained in the Department’s Engineering and Construction Management System (ECMS). In addition to a host of other capabilities, ECMS provides a clearing house of real-time unit costs for construction projects throughout Pennsylvania based on Engineering District.

At a minimum, the cost estimate should address the following specific categories of items, if applicable:

ECMS Item Prefix	Item Description
0950	Traffic Signals-General
0951	Traffic Signal Supports
0952	Controller Assembly
0953	Traffic Signal Systems
0954	Electrical Distribution
0955	Signal Heads
0956	Detectors
0957	Advanced Traffic Signal Technology

Signing (093x) and pavement markings (096x) may also be required for GLG projects. If the project alters the pedestrian crossing, the ADA curb ramps may need to be replaced and appropriate concrete items should be included. Widening and additional lanes are not eligible since the GLG program is intended for upgrading traffic signals.

If additional items are anticipated for this project beyond those listed above, refer to PennDOT Publication 408 (http://www.dot.state.pa.us/public/PubsForms/Publications/Pub_408/PUB%20408.pdf) for additional information and item numbers. Note: The section numbers within Pub 408 reference the ECMS Item Prefix numbers.

Unit costs for each item shall be obtained from ECMS. In the event that unit costs other than those identified in ECMS are proposed, justification should be provided. The utilization of other items in addition to those specified above is acceptable.

The following contingencies must also be included in the project cost estimate:

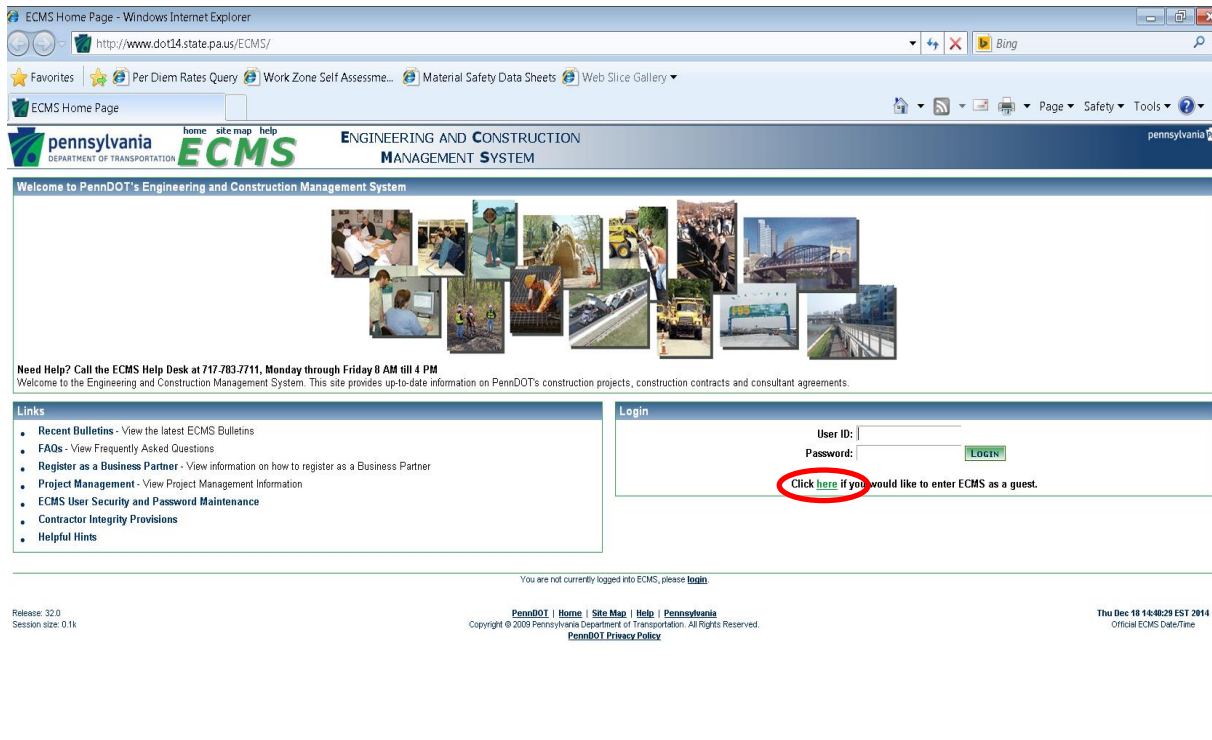
Contingency	Percentage of Subtotal Construction Cost
Design/Inspection	15%
Traffic Control	3%
Mobilization	3%

The format of the cost estimate can be determined by the applicant, as long as the procedures and items shown above are identified. Applicants may use the template available on the Traffic Signal Portal at https://www.dot.state.pa.us/public/Bureaus/BOMO/Portal/GLG_Cost_Estimate_Template.xlsx

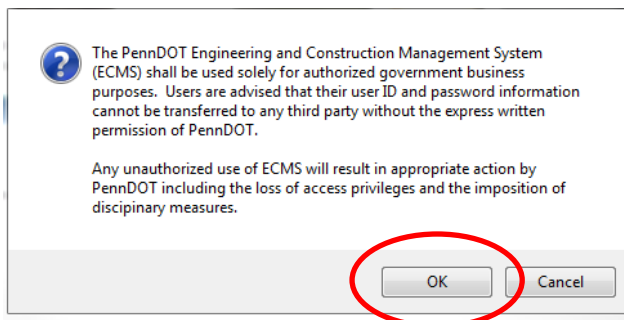
The following outlines the steps required to access ECMS and mine the information needed to develop the cost estimate. Access the ECMS homepage by typing the following into your browser’s address window: <https://www.ecms.penndot.gov/ECMS/>.

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You should then see the following screen, at which point you should click the “[here](#)” button to enter ECMS as a guest.

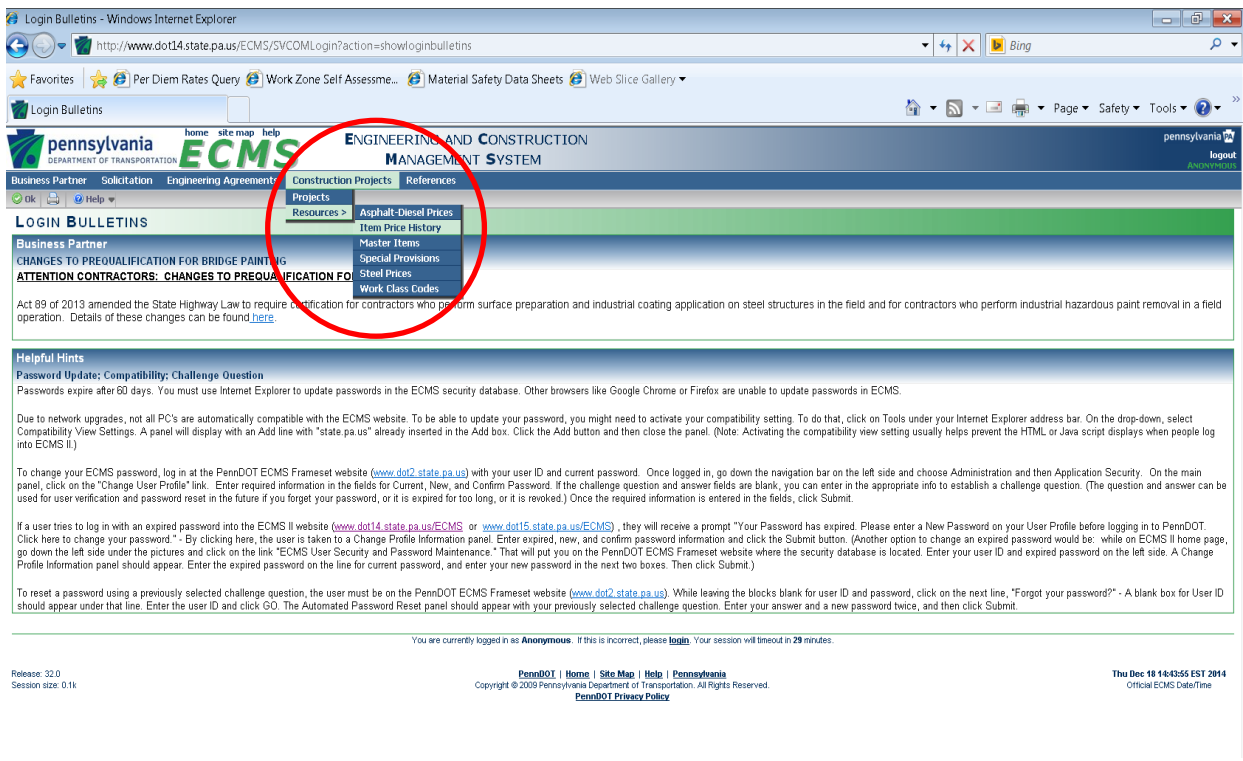


Click “OK” when the disclaimer dialogue box appears.

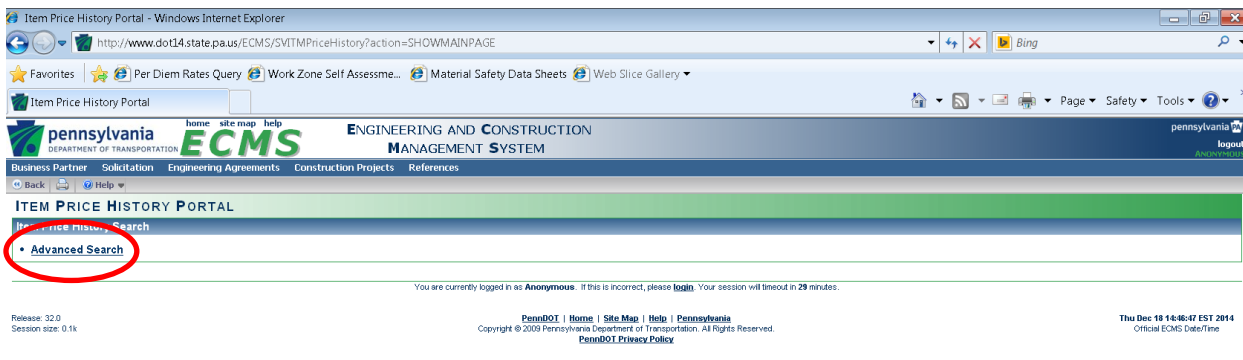


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At the top of the next screen, click on “Construction Projects”, “Resources”, and “Item Price History”.

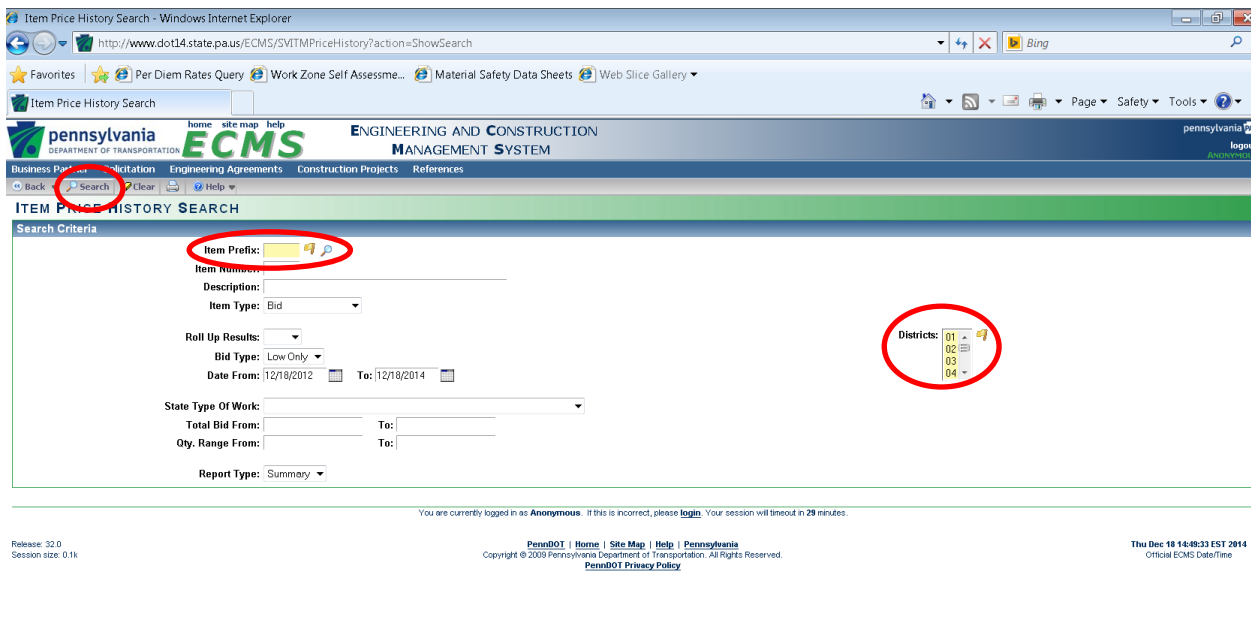


Then click “Advanced Search”.

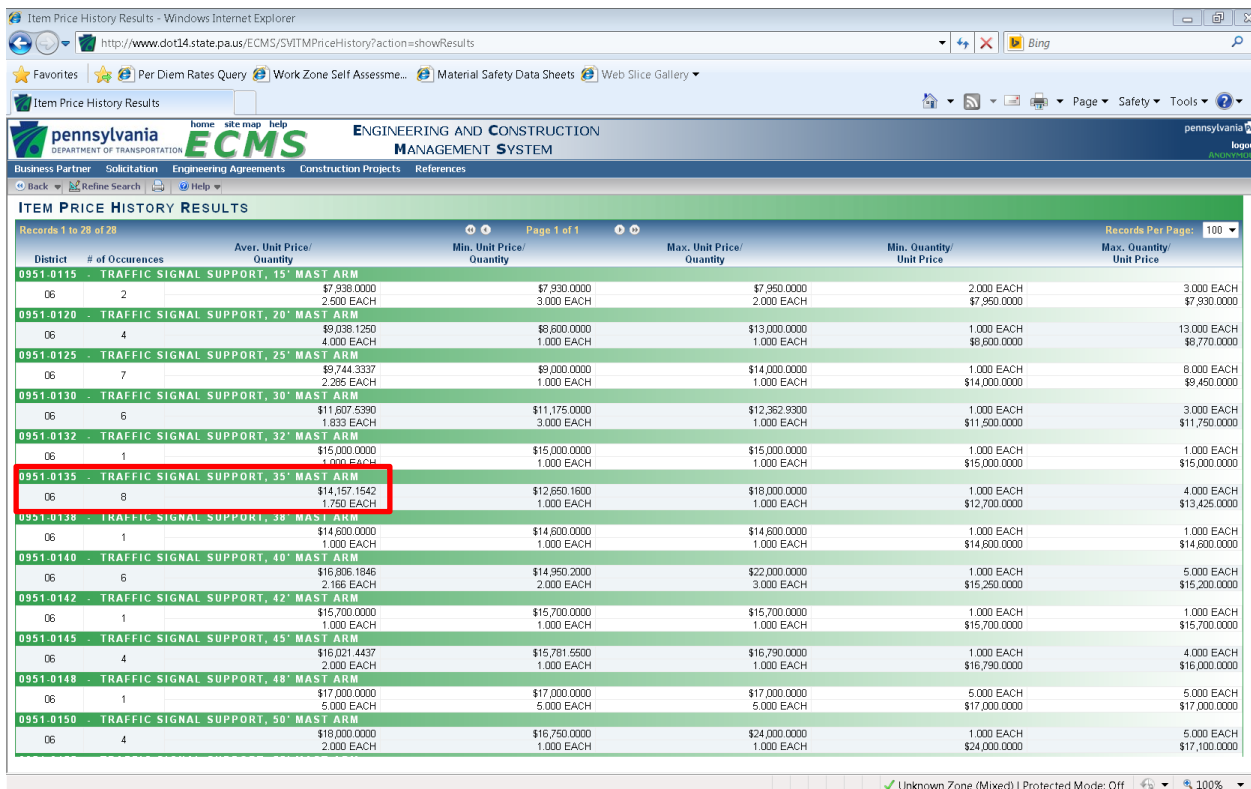


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Now type in the applicable Item Prefix, select the appropriate Engineering District, and click the Search Button in the tool bar.



At this time a screen will populate with all standard items beginning with the prefix identified in the previous screen. This is the place to obtain the average unit cost to be utilized in the project cost estimate. For example, the unit cost in District 6-0 to be used in the estimate for a traffic signal support with a 35 foot mast arm would be \$14,157.15.



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To return to the previous screen and enter additional prefixes related to other items on the project; click the “Back” button near the top of the screen.

District	# of Occurrences	Aver. Unit Price/ Quantity	Min. Unit Price/ Quantity	Max. Unit Price/ Quantity	Min. Quantity/ Unit Price	Max. Quantity/ Unit Price
0951-0115	2	\$7,938,000 2,500 EACH	\$7,930,000 3,000 EACH	\$7,950,000 2,000 EACH	2,000 EACH \$7,950,000	3,000 EACH \$7,930,000
0951-0120	4	\$9,038,125 4,000 EACH	\$8,600,000 1,000 EACH	\$13,000,000 1,000 EACH	1,000 EACH \$8,600,000	13,000 EACH \$8,770,000
0951-0125	7	\$9,744,337 2,285 EACH	\$9,000,000 1,000 EACH	\$14,000,000 1,000 EACH	1,000 EACH \$14,000,000	8,000 EACH \$9,450,000
0951-0130	6	\$11,607,539 1,833 EACH	\$11,175,000 3,000 EACH	\$12,362,930 1,000 EACH	1,000 EACH \$11,600,000	3,000 EACH \$11,750,000
0951-0132	1	\$15,000,000 1,000 EACH	\$15,000,000 1,000 EACH	\$15,000,000 1,000 EACH	1,000 EACH \$15,000,000	1,000 EACH \$15,000,000
0951-0135	8	\$14,157,154 1,750 EACH	\$12,650,160 1,000 EACH	\$18,000,000 1,000 EACH	1,000 EACH \$12,700,000	4,000 EACH \$13,425,000
0951-0138	1	\$14,600,000 1,000 EACH	\$14,600,000 1,000 EACH	\$14,600,000 1,000 EACH	1,000 EACH \$14,600,000	1,000 EACH \$14,600,000
0951-0140	6	\$16,806,194 2,166 EACH	\$14,950,200 2,000 EACH	\$22,000,000 3,000 EACH	1,000 EACH \$15,250,000	5,000 EACH \$15,200,000
0951-0142	1	\$15,700,000 1,000 EACH	\$15,700,000 1,000 EACH	\$15,700,000 1,000 EACH	1,000 EACH \$15,700,000	1,000 EACH \$15,700,000
0951-0145	4	\$16,021,443 2,000 EACH	\$15,781,500 1,000 EACH	\$16,790,000 1,000 EACH	1,000 EACH \$16,790,000	4,000 EACH \$16,000,000
0951-0148	1	\$17,000,000 5,000 EACH	\$17,000,000 5,000 EACH	\$17,000,000 5,000 EACH	5,000 EACH \$17,000,000	5,000 EACH \$17,000,000

Once you have obtained all of the information that you need, you can exit the browser at that time.