

PSPM
PURCHASING STANDARDIZATION PROGRAM MANAGEMENT (PSPM)
Getting Quality Equipment at the Best Price and More



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James D. McClure, P.E. of Estes, McClure & Assoc., Inc. Engineering and Consulting has developed a proprietary method for Texas Independent School Districts and Colleges to reduce the first cost of quality equipment and achieve additional cost savings.

Interview with McClure on [“How to Get Quality Products at the Best Price and MORE”](#).

Interviewer - “James before we discuss the specifics of your money saving program tell me what led you to develop PSPM? There are numerous procurement options out there for schools and colleges so why this?”

McClure - “I look back 40 years ago when I was working as an engineer for Propulsion Design in the aircraft industry at General Dynamics (now Lockheed Martin).”

“I observed the high cost of procurement for the initial development of the first prototype airplane and the first few test aircraft off the line until it went into production. In production procurement changed. Equipment was standardized and large volumes of equipment was bid and contracted. The delivery of the equipment was during several years but its pricing was set, and by the way, was much lower in cost. One manufacturer or vendor was awarded the contract for each specific equipment item.”

“In other words we were going to buy a lot of equipment over time and wanted each individual airplane to be alike. Purchasing standardization was managed and this saved first cost and more.”

“Can you imagine the added cost and headache for the military if each airplane had a different brand of pumps, air-conditioners, engines, starters, etc.? There would also be the added cost to keep up with what equipment is where, keep up additional inventory of spare parts, train staff to do maintenance on several different brands of engines, etc.”

Interviewer - "That sounds interesting but what does it have to do with saving Texas ISDs and colleges money."

McClure - "Everything! In today's market and procurement strategy, school districts have delegated equipment procurement and purchasing function, to contractors and sub-contractors that are constructing new schools, renovating old schools, and replacing old air-conditioning. Schools and colleges without realizing it are outsourcing the purchasing function of equipment. Its time for them to "pull their own strings".

"Say, for example, if a school district is going to build six new schools and renovate twelve old schools...the engineering specifications in today's procedures...using air-conditioning and energy management controls (EMCS) as an example...To comply with Texas schools competitive laws, the engineer will likely list three or more approved manufacturers of air-conditioning equipment for one school and do the same for EMCS."

"Typically if there is an Architect involved the engineering technical specifications are included with the Architect's specification for new construction or renovation project. Each school usually has its own set of contract documents, which includes individual plans, specs, bid forms, etc. Each school project is bid and most likely will not be built by the same Contractor and Subcontractor. Each has its own bid date set just before construction is scheduled to begin. Even if a Construction Manager is used, each school project is bid individually and the mechanical sub-contractors selects the manufacturer of each piece of the equipment (e.g. air-conditioning, EMCS, fire alarm, media retrieval, etc.) from the approved list in Estes-McClure's technical specifications."

"The district including their purchasing and maintenance departments have lost control of the equipment being installed. With this process the contractor and sub-contractors are "pulling the strings" like a puppet".

"Some school districts observed have had as many as 8 or 10 different brands with 8 or 10 different software packages of central EMCS, thereby making central control of the schools ineffective."

Interviewer - "You mean typically for these 18 schools with a known timeline for construction and renovation there could be 3 or more brands of air-conditioning, 3 or more brands of EMCS, and 3 or more brands of fire alarms, etc?"

McClure - "Yes, exactly"

Interviewer - “Bulk purchasing has long been a purchasing agent’s method to reduce first cost.” How in this example could they comply with procurement laws and keep from building every airplane different...oops excuse me...can they standardize equipment in multi-campus schools to get bulk purchasing power?”

**“Bulk Purchasing –
Key to Reducing
Price”**

McClure - “Yes”

“Standardization reduces first cost & other costs!”

Interviewer - “Tell me more”

McClure - “Estes-McClure working with the school’s or college’s purchasing and facility people would prepare specifications for the equipment to be purchased in bulk just as they normally would except different.”

Interviewer - “What?”

McClure - “Yes the technical part of the specifications for the equipment is the same except they include more information and strategy for PSPM. However, instead of Estes-McClure simply handing off the technical specification to the Architect for one project, the Engineer spends additional time and attention to do the extra work to develop separate additional bid documents...just for each specific type of equipment (eg. air-conditioning units, EMCS, fire alarm, etc.)...With all the typical sections (e.g. Invitation to Bid, Insurance Requirements, Instructions to Equipment Bidders, Bid Forms, General Conditions, Supplementary General Conditions, etc.) in advance of design.



PSPM requires additional time & attention.

Other additional work not normally done includes strategies, estimating quantities of equipment at specific different project schedules over several years to creating a bid form for present pricing or purchasing and for future pricing or purchasing, design unit pricing format and method, and determining appropriate means for adjustments to unit pricing.

There’s much more for Estes-McClure to do that typically is not done.”

Interviewer - “Such as?”

McClure - “Well this quantity or bulk purchasing to save money gets very competitive. The engineer also spends additional time and attention doing pre-bid or pre-competitive sealed proposal conferences. Actually

we also may do interviews with prospective manufacturers before and/or after receiving bids or proposals. Proposals, pricing, and submittals received with bids or proposals must be evaluated up front a long time before the construction starts and in some cases years before the construction starts.”

“The proposals received are detailed and complex. Because of the large amount of money involved, the vendors/manufacturers tend to be more intense in their selling and this takes more time.”

Interviewer - “Then the Engineer does a lot of additional advance work before the District or College even buys the equipment.”

McClure - “Yes, that’s it! Buy now – Pay later. The equipment is pre-priced, the manufacturer is selected, the model of equipment is selected but the Owner, does not pay until the equipment is delivered and installed. Each projects construction documents contain an equipment allowance for the general contractor to include in his bid for the pre-negotiated, pre-selected, pre-priced and pre-bid equipment.”

Interviewer - “Is there anything else Estes-McClure does in their Purchasing Standardization Program Management process?”

McClure - “Much more! A lot is going on behind the scenes. For one thing with the typical approach where equipment for each job is bid with the job for that project only, the mechanical contractor for air-conditioning, as a example, buys the air-conditioners and arrange transportation, insurance during transportation, and its his equipment if the delivery truck is wrecked and the equipment is destroyed. If the delivery truck is late the mechanical contractor’s crane or helicopter may have to wait an extra expensive day or two for the equipments arrival. The Estes-McClure specifications for this PSPM must address, as much as can be, these possibilities and situations and define who does what and when. There are many more details, tasks and strategies that we do extra for PSPM.”

Interviewer - “Such as?”

McClure - “Well the PSPM spec’s for bulk air-conditioning equipment determines responsibilities for the manufacture, delivery or transportation Truck Company, mechanical contractor and Owner. Who insures the equipment and when? Who has warranty responsibilities and when? Does the owner really take ownership when the original pre-purchase contract is signed or when delivered to the job site or when the mechanical contractor has it installed? What happens or who pays if an air-conditioner is dropped and damaged during the process of unloading the equipment and setting it on the roof?”

“Each equipment item has different issues to be addressed.” Additional time and attention is required that is not normally spent.”

“In purchasing, knowledge is power. Knowing strategies of how to set-up the bids or proposals to protect the owner to address future conditions such as change in quantities...In other words if more equipment is needed than anticipated, methods and strategy are pre-determined and “built-into” the specs to prevent “price-gouging” as may occur in change orders when a vendor or manufacture thinks or knows they are locked-in. Also, methods are included to ensure that the owner gets full pricing returned rather than “50 cents on the dollar” if quantities are reduced. Actually it’s a “win-win” situation for the Contractors, Sub-contractors, and Owner.”

“Knowledge is Power”

Interviewer - “I have more questions, but first tell me more about the benefits of standardization of equipment purchasing such as air-conditioning, EMCS, fire alarm, and other building systems major equipment items.”

McClure - “Well let me think first like a purchasing professional. Standardization program benefits include several things for instance...effective way to reduce costs, reduce the number of inventory or stock items, buy off the shelf items, minimize inventory, promotes more intense competition among manufacturers and dealers, reduces misunderstanding and simplifies the procurement function after the initial extra procurement work is done, and reduction in storage and transportation requirements and improved delivery.”

“Purchasing ought to be the driving force that initiates a formalized Purchasing Standardization Program for equipment.”

“The goal of any Procurement Department is to keep the organization supplied with quality materials and equipment at the best price and when it is needed.”

Interviewer - “Do you have any specific examples?”

McClure - “I thought you would never ask!”

“Two million dollars were saved a few years ago in Sherman ISD using our proprietary Purchasing Standardization Program Management. Two million dollars in first cost alone and you and I have not even talked about the “more” savings component.”

Interviewer - “What did they buy using PSPM?”

McClure - "For 11 schools that were renovated and one new school, they bought using PSPM air-conditioning, equipment, to pre-treat outside air, EMCS, fire alarm, data-cabling, and one more that I can't think of at this moment. I'll remember it in a minute. This was installed during a 4 year period."

Interviewer - "Any other examples?"

McClure - "Yes to name a few..."

"Tyler ISD saved \$320,000 by purchasing district wide energy management controls that were installed in phases during 3 years."

"Wharton ISD saved about \$1.5 million as opposed to other procurement options by combining PSPM for EMCS with master planning for EMCS, HVAC, Lighting and other work."



"Hurst-Euless-Bedford ISD purchased district wide EMCS."

"Garland ISD recently purchased district wide lighting improvements."

Interviewer - "You're talking about significant dollars. Tell me more."

McClure - "Mike Clendenin and Ed Cliver, P.E. of Estes, McClure and Assoc., Inc. just worked with Duncanville ISD and saved them more than \$800,000 in purchasing air-conditioning equipment and EMCS for their \$166 million bond program. Dr. Cook, Superintendent, and Norman Davis, Executive Director of Facilities Management, of DISD recognized the benefits of PSPM because of their already successful experience as "keen" managers of the taxpayer's dollars. The work at DISD is in progress now."

Interviewer - "I suppose you have a long list of clients for whom you have saved money."

McClure - "There's more. Initially Lewisville ISD used PSPM to purchase fire alarm and communications for a few schools and saved more than \$300,000. Lewisville ISD has now used this method in their Construction Manager – At Risk projects. They have used it for purchasing EMCS for the past 14 years and for purchasing communications, media retrieval, fire alarm and other systems the past five years. The savings are certainly more than a million dollars."

Interviewer - "That's significant. I now see how this Purchasing Standardization Program Management works and certainly you have done your homework. But earlier at the beginning of this interview you said you would tell me "How to get quality products at the best price and MORE!" Tell me more about the MORE part."

McClure - "Thank you for asking. My difficulty is not telling you about the MORE but is just knowing when to quit talking. You see there is almost no end to the "MORE" or added benefits for a school or college."

"There is a domino effect once the first cost savings of equipment are achieved. There is much more hard and soft cost savings."

"In Duncanville ISD, using PSPM much higher efficiency air-conditioning was affordable and will save the District an additional \$187,000/year in reduced energy consumption. The EMCS will result in more energy savings."

"There is a domino effect of savings."

"Once equipment first costs are reduced, the domino effect results in the District saving on Architectural/Engineering and Contractors total cost because usually these are based on a percentage of total construction cost."

By standardizing, maintenance will know more about the specific air-conditioning or control software or fire alarm panels and so on. Knowledge is power. More knowledgeable M&O, better trained workers reduces down time of equipment, fewer and better trained employees, reduced inventory in the warehouse, long term relationships for factory technical support and service, reduced maintenance costs, extended life of equipment, increased reliability, improved classroom environment, reduced financing costs, accurate planning and budget..."

"With the PSPM savings schools & colleges can do more."

"See what I mean, where do I stop. PSPM reduces purchasing workload, the Owner has more control, large volume purchasing gets better or more factory and dealer attention for the Owner's service, parts, and support needs. It's a win-win and MORE situation. With the savings schools and colleges can do MORE!"

Interviewer - "How big is the potential savings for Texas schools and colleges?"

McClure - "I'll have to think about that one. Let me get back with you. Wait a minute lets do an example based on what we at Estes - McClure are doing."

Interviewer - "OK if you have the time."

McClure - "Sure, this is awesome. Excuse me but I just can't sit down thinking about the potential."

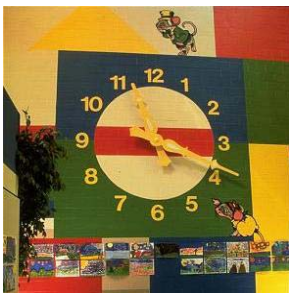
"In the past five years Estes-McClure has provided engineering services for more than \$2.6 billion in school and college total construction cost work. This is more than 24 Million square feet. About \$27 Million of this was air-conditioning equipment and about \$15 Million was EMCS. Of this \$42 Million, PSPM could have saved, based on past experience, about \$3 to 5 Million for EMCS and about \$7 Million for air-conditioning."

Interviewer - "Get your calculator! Quickly what does that add up to?"

McClure - "Let's see about \$3 Million saved by using PSPM for EMCS plus another \$7 Million saved for air-conditioning, that adds up to \$10 Million."

Interviewer - "\$10 Million potential savings and that's just for air-conditioning and controls and doesn't even count other systems equipment and the MORE you talked about."

McClure - "Right now you know why we at Estes-McClure get excited about this. We're not just trying to sell additional engineering service. We are selling millions of dollars for almost nothing but some additional value added time and attention...in other words the Owner gets PSPM for an additional consulting fee to Estes - McClure."



PSPM requires additional time and attention.

Interviewer - "Why has this not caught on?"

McClure - "I believe its because we are engineers and have been selling the details and not the sizzle of saving hundreds of thousands of dollars and in some cases millions of dollars."

Interviewer - "How do you change that so more schools can save money and MORE?"

McClure - "Well we have recently retained a communications consultant. She is Linda Mastaglio. I've asked her to help Gary Bristow and Mike Clendenin of Estes-McClure to prepare a presentation that is scheduled to be presented at TASB/TASA Annual Convention in Dallas this September 2003."

"Linda is helping us to rethink how PSPM is described and presented and we are preparing to do more to ensure that everyone at Estes-McClure understands the program."

Interviewer "Why the name PSPM?"

Interviewer - "Do you like the name PSPM?"

McClure - "The name implies standardization, bulk purchasing and management to achieve that end for immediate and long term cost savings."

"However, I don't care what you call it as long as we get it out to our customers in a way that they can understand it. What I really want is to help schools and colleges save money."

Interviewer - "Why is that important to you?"

McClure - "That's the easiest question you have asked me today."

"First it's the right thing to do for our customers."

"Second its good for the future growth of Estes-McClure."

Interviewer - "Explain please!"

McClure - "When Estes-McClure was founded almost 30 years ago it originated out of saving energy or energy efficiency while keeping lower first cost of construction...The very concept of establishing Estes-McClure was savings for our customers. Early on and as today our designs and methods reduce first cost and energy costs. PSPM now will reduce first cost MORE and result in MORE cost savings for maintenance and others."

Interviewer - "This has been most informative. Schools and colleges have a real opportunity to do MORE WITH LESS."

McClure - "Thank you and have a safe trip home."



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