Managing Your Facilities

Monthly Newsletter of the National School Plant Management Association
March 2017

TO REGISTER

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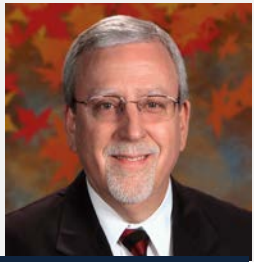
National Facility Masters Conference

April 30-May 3, 2017
Embassy Suites Northwest Arkansas Hotel Spa and Convention Center
Rogers, AR



Mike Mertens, NSPMA Board President

The Facility Masters Conference is fast approaching! This year's conference, a joint effort between NSPMA and SchoolDude, will be from April 30th-May 3rd at the Embassy Suites Northwest Arkansas Hotel, Spa, and Convention Center located in Rogers, Arkansas, in the center of the Ozark Mountains in Northwest Arkansas. Conference benefits include presentations that will focus on a "Facilities Masters" track with presentations on numerous topics on Facility Management & Preventative Maintenance, Energy Management, Human Resources, Green Schools, Facility & Grounds Operations, School Safety, and custodial topics.

For current SchoolDude clients and those interested in learning more about their programs, there will be quite a number of breakout sessions:

- "Using Account Reviews and Data to Justify Staff, Budget, and Projects"
- "Streamlining Approvals and Automating Communication with Maintenance Essentials"
- "My School Building Best Practices"
- "Finding Cost Savings in Your Data with Maintenance Essentials"
- "Optimizing Maintenance Essentials through KPI Analysis"
- "Troubleshooting in Maintenance Essentials"

In collaboration with the Arkansas School Plant Management Association, there will be certification classes offered through ASPMA's Certified Facility Director program on topics such Risk Management, School Plant Operations, and Basics of Building Systems. For Arkansas attendees, SchoolDude will introduce their new software upgrade for the Maintenance Direct and Preventive Maintenance Direct modules that are used by all Arkansas public schools.

There are many opportunities for our conference attendees and partners to make new friends in the facility management world and to learn new things through our breakout sessions. As we move forward in the next few weeks, please do not hesitate to check out our website @ **nspma.org.** The association also has the capability to give exemplary customer service to our vendors and participants. You can speak to our association secretary, Sherry Jennings, five days a week. Sherry will be glad to answer any questions you may have. Office hours are from 7:30am-4pm, Monday-Friday. Sherry can be contacted directly at 757-547-0489. Her email is: sherry.jennings@cpschools.com

NSPMA hopes that you get involved with our association and join us in Rogers for our 2017 National Conference…..and to enjoy the great spring weather in the beautiful Ozark Mountains!

Looking forward to seeing each of you in Arkansas,

Mike

Mike Mertens
2016/2017 NSPMA President

School Building Condition and the Influence on Student Learning

The time is now for a national study reflecting public school buildings and learning.

John A. Bailey, Ph.D.

Plant Management Association (NSPMA) and SchoolDude are partnering for a comprehensive research study that will examine student academic performance of mean scaled math and language arts standardized test scores, while taking into account the condition of school buildings around the United States. Several research studies have been conducted in Virginia, through Virginia Polytechnic Institute and State University, which have revealed clear evidence that school building condition does have an impact, with other controlled variables, on student learning.

There is a need for further study of the correlation between students and their learning environment. There have only been fragments of studies performed, and there is a need for a comprehensive study across the country.

There has been much discussion about how to truly identify the best method to measure the school building condition. Dr. Carol Cash, professor at Virginia Polytechnic Institute and State University, developed a very concrete tool that allows the school building administrator or principal to conduct the physical assessment of the school building. This assessment has been used in many research studies in Virginia. There is also building maintenance software that can assist operations departments in tracking key building performance maintenance indicators.

SchoolDude has served public schools for over 13 years through their software programs supporting maintenance operations and the tracking of key performance indicators such as electrical, HVAC, plumbing, and carpentry, as a few examples. SchoolDude is used in operations management in school districts in over 35 percent of the United States.

Schools in several states, including Arkansas and South Carolina, use their facility management software statewide. SchoolDude can provide a unique opportunity to track how well school buildings are maintained through general and preventative maintenance. This may provide the needed tool to standardize a true measurement that defines whether a school building is deemed standard or substandard.

There have been seven states identified where SchoolDude is predominant as the program used for schools operations maintenance. These states include Arkansas, Michigan, New Jersey, California, Virginia, New Mexico, Texas, and the state of Washington. A random sample will be taken in each state and the building condition will be evaluated through preventative maintenance statistics, completion rates of work orders, and deferred maintenance. Once the building condition is defined by measurable performance building indicators, the mean scaled scores in language arts and math will be evaluated for the randomly selected schools in each of these states. Several controls will need to be in place to make the research findings valid. Socioeconomic status and other variables will be controlled to make the research as robust as possible.

The physical environment in which children learn is still of compelling interest, especially in correlation to the influence of student learning. Funding must continue to be appropriated to maintain and enhance our school buildings so our students and teachers have a suitable environment for optimal academic achievement.

SCHOOLDUDE. by Dude Solutions

John A. Bailey, Ph.D. is the Director of School Plants for Chesapeake Public Schools in Chesapeake, Virginia, the National School Plant Managers Association past president, and the Virginia School Plant Managers Association president in Virginia. He may be reached at john.bailey@cpschools.com

New Jersey School Buildings & Grounds Association Annual Conference a Success

Kimberly A. Keener, CEFM
LEED Green Associate

The New Jersey School Buildings & Grounds Association (NJSBGA) held its 21st Annual Conference & Expo this month in Atlantic City. The event registered 450 attendees and 250 vendor booths. We welcomed out-of-state guests from New York, Massachusetts, as well as Jim Vicar and John Noel from NSPMA. Representatives from Rutgers University, NJ Department of Education, NJ School Boards Association, NJ Association of School Business Officials, NJ Association of School Administrators, NJ State Police Office of School Emergency Preparedness, Sustainable NJ for Schools, NJ Department of Environmental Protection, NJ Association of Designated Persons, NJ Audubon and Eco-Schools, and Local Fire Officials were present for resource networking and training. Continuing Education Units toward the NJDOE Certified Educational Facilities Manager license renewal were offered throughout the conference. Josh Peach from SchoolDude delivered an outstanding lunch presentation on customer service. Our annual banquet dinner celebrated Green Ribbon School recipients, scholarship awards, and the Educational Facility Manager of the Year Award.

Visit our website www.njsbga.org!

Kimberly A. Keener is Treasurer, NJSBGA Mercer Chapter; Vice President, NJSBGA-State; Vice President, NJADP; President-Elect and NJ State Representative, NSPMA

SAVE THE DATE!

2018 NJSBGA/NSPMA Conference & Expo
March 12-14, 2018
Harrah's Hotel & Conference Center, Atlantic City, NJ

Join us for the National Facility Masters Conference, April 30 - May 3, 2017, in Rogers, AR, in beautiful Northwest Arkansas!

Northwest Arkansas ranks in the "Top Ten Best Places in the U.S. to Travel." – *Lonely Planet*, World's Largest Publisher of Travel Books and Guides

"Northwest Arkansas, home of the Crystal Bridges Museum of American Art, is the hottest travel destination in the U.S." – *Travel + Leisure*

Preserving Our School Facility Investments

Building Component Forecasting and Obsolescence/Major Maintenance Planning

John P. Rome, Jr.

Typically, the marching orders for facility/maintenance departments are spelled out in some form of a long range strategic action plan. These plans vary in terms of format and time frames, but the process generally includes, but is not limited to, data review, needs assessment, goal setting, objectives to measure progress, action step formation, stakeholder committee/review, review by the local school board, implementation, and follow-up reporting. These long range plans serve as a blueprint to keep facility/maintenance department staffs on track in the hectic world of facility management.

A major priority area of many long range strategic action plans for facility/maintenance departments is the maintenance and upkeep of all district facilities. This is an area that facility/maintenance departments across the nation regard as a source of pride. We have all heard the old adage it is easy to construct a building, the hard work is in maintaining/preserving them. Too often, school districts across the nation utilize non-recurring funding sources, such as bond issue referendums, to fund major construction projects without establishing a plan for long term maintenance or a plan to fund said maintenance. There are specific planning tools utilized by the St. Charles Parish Public Schools' Departments of Physical Plant Services and Maintenance that illustrate how school districts can ensure that the objectives associated with this priority are achieved. The two planning tools that will be highlighted are the Long Range Major Maintenance/Capital Improvements Five Year Outlay Plan (LRMM/CIP) and the Major Building Component Obsolescence Plan (MBCOP).

Before a description and analysis of these two plans are outlined, it is appropriate to provide information that will give a perspective on the environment in which these plans operate. The St. Charles Parish Public School system is located in St. Charles Parish, Louisiana, which is a suburban parish located 20 miles west of New Orleans and 60 miles south of Baton Rouge. The parish is divided by the Mississippi River with about half of the 52,000 residents located in each area. Because of the river, the parish has a strong petro-chemical and maritime industry presence. The school system is fortunate to have a community that is very supportive of public education. In addition, business and industry support the school system in a myriad of ways. Approximately 93% of the school aged children in the parish attend public schools, which is somewhat of a rarity for the metro New Orleans region of the state of Louisiana. The St. Charles Parish Public School System demographic information is as follows: 15 schools, six centers, and eight administrative buildings, a building square footage of 2,161,880, 1,811 employees, 9,819 students, and a per pupil expenditure of $14,476. The annual budget for the Departments of Physical Plant Services and Maintenance averages $35,915,329 per fiscal year (FYs 2014, 2015, and 2016 were used to compute this average). The school system is an "A" rated school system by the Louisiana Department of Education. Now that the environment in which these plans operate under has been identified, a description and analysis of the LRMM/CIP and the MBCOP will follow.

The former plan, LRMM/CIP, is a database of all schools/facilities within the school district that illustrates the identified major maintenance and capital improvements projects for schools/facilities. For each school/facility, the project name, area/location, year budgeted, and estimated cost are listed. The plan is based on a five fiscal year cycle with the current fiscal year being the first point on the continuum. The plan allows for flexibility needed as continuous change exists in facility planning. The identified projects on this list will have some movement along this continuum based on several factors, which will be discussed and outlined later in this article.

The latter plan, MBCOP, is a database of all major systems within buildings at all facilities in the district. Major systems in the database include roofing, flooring, HVAC, energy management, and lighting. While there are many more building components/systems that can be tracked, these are the ones considered by the district in an effort to not get lost in the minutia of the available data. Each district should tailor their plans to include building components/systems that they deem as critical data points. For each item, a construction/installation date is entered and a life cycle based replacement date is entered. For many years, all of the data was entered manually into a spreadsheet created by district staff. Life cycle based replacement dates were gleaned from warranty information, manufacturer life cycle projections, and previous project data cost (which must be adjusted for

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Preserving Our School Facility Investments, continued

inflation and market conditions). Understandably, this was a laborious task that occupied a large amount of time and human capital.

Currently, facility managers have additional tools at their disposal to make endeavors like these more manageable and run more efficiently. Various education enterprise asset management vendors now provide forecasting instruments that can do much of this work for facility departments. One example of this type of forecasting program is the SchoolDude Capital Forecast Direct module. The forecasting programs available through various vendors typically have built in formulas to determine life cycle based replacement dates and to determine major component replacement costs. The administrative staff in the St. Charles Parish Public School System's Departments of Physical Plant Services and Maintenance is beginning the process to research and select a facility component forecasting program that will meet the needs of the departments. Most forecasting programs allow for migration of previously compiled data that may have already been created in a format such as Microsoft Excel. This will allow for the conversion process to be less laborious and more efficient.

A yearly analysis of the MBCOP database helps identify major system projects that need to be planned for as part of the LRMM/CIP (see table for an excerpt of the two plans and an example of the analysis leading to action). Table 1.1 below is an excerpt from the MBCOP that illustrates an example of major system information entered for a school site within the district. Highlighted in yellow is the HVAC system information for Buildings B and C at Albert Cammon Middle School. Notice the life cycle expectancy for the system was projected to expire in 2015. Table 1.2 below is an excerpt from the LRMM/CIP that illustrates an example of scheduled major maintenance/capital improvements for the same school showcased in table 1.1. Highlighted in yellow is the correlating budgeted HVAC replacement for Buildings B and C at Albert Cammon Middle. These two tables serve as an example of how the plans are coordinated.

TABLE 1.1

St. Charles Parish Public Schools Building Maintenance Obsolescence Planning Chart										
Albert Cammon Middle School										
	Yr/Built	Sq/Ft	Asbestos	Rep/Budgeted Yr	HVAC	Roof	Lighting	Flooring	EMS	Comments:
Building - A	1973	36000	√	Yr/Replaced	2003	2006	1973	1973	√	Building A flooring
				Yr/Budgeted	2023	2026	**2015**	2003		abated as part of
										2003 flooring
Building - B	1993	14727		Yr/Replaced	1993	1993	1993	1993	√	replacement
				Yr/Budgeted	**2015**	2043	**2015**	2023		
Building - C	1993	9871		Yr/Replaced	1993	1993	1993	1993	√	
				Yr/Budgeted	**2015**	2043	**2015**	2023		

TABLE 1.2

LONG RANGE MAJOR MAINTENANCE CAPITAL IMPROVEMENTS - GOAL D 2014-19						
SCHOOL	PROJECT NAME	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
		EST.	EST.	EST.	EST.	EST.
		BUDGET	BUDGET	BUDGET	BUDGET	BUDGET
Allemands Elem.	Main building and cafeteria roof (Complete)					
Allemands Elem.	Site drainage				$140,000	
Allemands Elem.	Intercom (Complete)	$40,000				
Allemands Elem.	Building B Center classroom enclosures	NFS	$72,500	$72,500		
Cammon Middle	B/C Building HVAC		$145,000			
Cammon Middle	Parking lot addition (Complete)					
Cammon Middle	Parking lot milling, asphalt, and striping (Complete)					
Cammon Middle	Cooler/freezer	$75,000				
Cammon Middle	Lighting fixture replacement	$120,000				

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Preserving Our School Facility Investments, continued

However, in the world of facilities, it's not always as simple as it appears. The only constant that can be counted on is that there will always be movement and change. There are many other factors that must be considered, such as: available funds, emergency projects, other critical need projects, work order data, warranty issues, et cetera, et cetera. While it is important to realize that this type of planning cannot be conducted in a vacuum, creating and utilizing forecasting tools and replacement plans enable school districts to be in a more advantageous position regarding the preservation of facilities. Having plans such as building component obsolescence plans and long range major maintenance plans will facilitate the protection of the investment our districts and communities have made in the facilities that house our most precious commodity, students.

John P. Rome Jr. is the Executive Director of Physical Plant Services for St. Charles Parish Public Schools, in Luling, LA. He is a Louisiana School Facility Managers' Association Board Member and past President (2013), National School Plant Management Association (NSPMA) Board Member and Vice-President, and the 2015 NSPMA National School Plant Manager of the Year. He can be reached at 985-785-3116 and/or jrome@stcharles.k12.la.us. *Article reprinted from the April 2016 edition of the* School Planning & Management Magazine *with permission.*

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jackie.gonzalez@lennoxind.com

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depewe@btcs.org

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matt.ladd@trigg.kyschools.us

Douglas Henley, Connecticut
dhenley@crec.org

Keith Watkins, New York
kwatkins@phoenixcsd.org

Dusty Duncan, Arkansas
dduncan@msd3.org

Josh Peach, SchoolDude
josh@schooldude.com